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# **EVALUATING BUSINESS STUDENT SATISFACTION IN THE MALAYSIAN PRIVATE EDUCATIONAL ENVIRONMENT**

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A thesis submitted in partial fulfilment  
of the requirements of the  
University of Northumbria at Newcastle  
for the degree of  
Professional Doctorate

Research undertaken in Newcastle Business  
School

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## **Abstract**

The educational environment is very dynamic and challenging with intensifying competition, as well as an increase use of public comparisons between institutions. Therefore, understanding and attempting to improve student satisfaction is becoming critical to educational institutions. In Malaysia, education is a leading industry and plays a vital role in national development. As the private education sector is growing rapidly, there is a mounting interest to use service quality improvement measures to enhance competitiveness.

The main aim of this study is to identify and evaluate the drivers that influence business student satisfaction in the Malaysian private educational environment. Specifically, this study seeks to measure the influence that each driver has on business student satisfaction and the importance of each driver to students; identify the underlying dimensions of the satisfaction drivers that influence business student satisfaction; evaluate the influence of factors such as gender, year of study, programme of study, semester grade and nationality on the results; identify areas of service priority towards better allocation of resources; and to discuss the practical implications of the results.

A positivist approach is adopted in this study, whereby 1,200 questionnaires have been distributed to undergraduate business students at four private educational institutions in Malaysia. A total of 823 responses were found to be usable for analysis giving a response rate of 69%. This study adopted and extended a “service-product bundle” model to

evaluate the satisfaction level and the importance of the specific service attributes at the educational institutions.

Results were analysed using SPSS and quadrant analysis. The results revealed that students are satisfied and placed more importance on the physical facilities of an institution, followed by the teaching and learning drivers. Analysis of the underlying dimensions of the satisfaction drivers resulted in the adoption of a 12-factor solution after conducting several trial rotations. Significant differences exist between the demographic factors and six factors. Quadrant analysis conducted showed eight out of the 12 factors require attention by the educational institutions towards better allocation of their resources.

This study contributes to the marketing literature by providing an examination of several marketing constructs. This is an important contribution as it provides an improved understanding of student satisfaction and perceptions of the factors linking to the physical facilities and facilitating goods as well as the teaching and learning issues. From the professional practice contributions, this study will benefit the business schools and educational institutions in general as it provides practical information about what and how students of different levels of study; programme of study; gender; nationality; and level of academic performance consider important in their level of satisfaction and perceptions.

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## **Abbreviations/ Terms**

OECD	Organisation for Economic Cooperation and Development
UK	United Kingdom
USA	United States of America
MOHE	Ministry of Higher Education
MQA	Malaysian Quality Assurance
MQF	Malaysian Qualifications Framework
SETARA	Rating Systems for Malaysian Higher Education Institutions
SERVQUAL	Service Quality
SERVPERF	Service Performance
IT	Information Technology
HedPERF	Higher Education Performance
SEEQ	Students' Evaluation of Educational Quality
MBA	Master of Business Administration
CSEQ	College Student Experiences Questionnaire
LSEQ	Lingnan Student Experiences Questionnaire
IP	Importance Performance
SPSS	Statistical Package for Social Sciences
ANOVA	Analysis of Variance
SEM	Structural Equation Modelling
OT	Other programmes
AC	Accounting

IB	International Business
MK	Marketing
BA	Business Administration
FP	Financial Planning
NBS	Newcastle Business School
CI	Confidence Interval
TQM	Total Quality Management

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Finally, special thanks and a deep sense of gratitude go to my mother, brothers, sisters, nephews, nieces, and friends for their love, prayers, support, understanding, and interest from commencement to the final page of this thesis.

## **Dedication**

In memory of my late father

Yusoff Abu Bakar, - who passed away peacefully on 22 October 2011. Thank you very much for being my pillar. This is for you, dad.

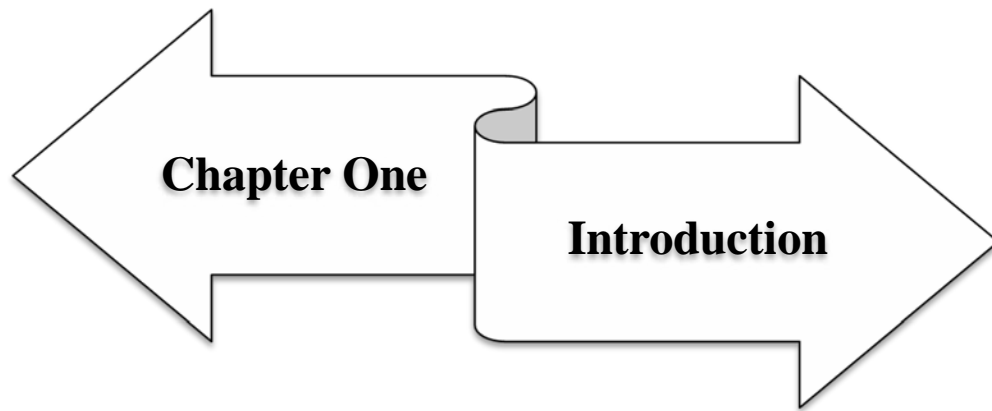
## Declaration

I declare that the work contained in this thesis has not been submitted for any other award and that it is all my own work.

Name: Mazirah Yusoff

Signature: *Mazirah*

Date: 5 December 2011



## **1.0 Introduction**

Understanding student satisfaction is critical to educational institutions as it provides inputs towards developing better tools to reach the students. Telford and Masson (2005) indicate that satisfaction in higher educational institutions is considered a measure of effectiveness in the sense that universities that are successful in providing a desirable service tend to adopt satisfaction as their strategic element towards differentiation. Cooper (2007) emphasizes that educational success depends on the efforts from the students as well as the universities. These views indicate that the educational institutions need to develop effective ways to identify and understand student satisfaction if they want to be successful, and that it has to be a continuous process.

Studies (Alridge and Rowley, 1998; Athiyaman, 1997; and Wiers-Jenssen *et al.*, 2002) agree that understanding and measuring student satisfaction relates to a set of indicators that covers a student's life and this involves two loosely bound categories, evaluating teaching and learning and also looking into total student experiences. Elliot and Shin (2002) state that focusing on student satisfaction enables universities to re-engineer their organisations to adapt to students' needs and at the same time create a system towards continuous monitoring of the effectiveness of meeting or exceeding their needs. They are also of the opinion that student satisfaction provides an avenue through which a competitive advantage can be achieved in educational institutions.

Towards examining business student satisfaction in the Malaysian private educational environment, this chapter presents, analyses and validates the problem for which a

solution is sought by undertaking this study. The main aim of this study is to identify and evaluate the drivers that influence business student satisfaction in the Malaysian private educational environments. The drivers here refer to the physical facilities and the facilitating goods as well as the explicit and implicit services, or also known as the teaching and learning drivers. This study validates the problem through highlighting the importance of understanding student satisfaction followed by the background information on the problem and its development. The theoretical foundation information on the area of student satisfaction will then be presented. The chapter continues by explaining the motivation of the study, the research context, essence, aims and objectives, and the significance of this study before providing an overview of the upcoming chapters in this thesis.

## **1.1 Background Information to the Problem**

Education as a service provided to the students involves effective learning, an understanding of how the world works and developing a global view that guides behaviour and generally shapes the way the knowledge is acquired and used. It has also been acknowledged that in education as in business, the active participation of actors in the process greatly enhances the quality of the output. Students seem to be better educated if they are motivated to be actively involved in the educational process (Duque and Weeks, 2010).

Perkinson (2006) in his study reported that the private higher education market is growing. Year 2000 recorded over 90 million students enrolled in higher education

worldwide and the figure grew to more than 110 million in 2005 (Perkinson, 2006). He further states that there will be growing demographics and fiscal pressures ahead for higher education. Another report by World Bank (2002) indicates that higher education will experience the “the perfect storm” and that there are six converging forces of change due to the increasing importance of knowledge; the change in demographics; decline in public financing/-sourcing alternative financing; the further impact of globalization; the continued impact of internationalization; and the continuing information and communications technologies revolution.

The Organisation for Economic Cooperation and Development (OECD), in its study on the demography of education under the title “Higher Education to 2030,” discovers and summarises the following trends (OECD, 2008):

With regards to students, some of the observations are:

- i) Student participation will continue to expand and contraction will only affect a small number of countries;
- ii) The majority of the student population comprises women;
- iii) A more varied mix of student population of which greater numbers comprise international students, older students and those studying part-time, etc;
- iv) A broadening of the social base in higher education together with the uncertainty of how this will affect inequalities of educational opportunity between the social groups.

With regards to teachers, the following points are observed:



- i) The academic profession will be more internationally-oriented and mobile but will still be structured in relation to the national circumstances;
- ii) The activities of the profession will be more diversified and specialised and subject to varied employment contracts.

In relation to the above, there has been an increasing globalization in the higher education sector during the past decades. According to Altbach (2004), the number of students studying worldwide outside their home countries may increase to 8 million by the year 2025 and most of the international students are from countries in Asia, Africa and Europe. According to Mazzarol *et al.*, (2003), there are three distinct waves of globalization in the international higher education industry. The first wave is linked to the usual model which involved the movement of students to host countries to study. The second wave involved twinning programmes with local institutions and this arrangement enables students to study a foreign degree in their own countries. The third wave, on the other hand, involved the setting up of branch campuses in foreign markets as well as the development of online courses which have been made possible through information technologies. The pioneers of this forward integration are Australia and the UK (Mazzarol *et al.*, 2003). These trends and developments indicate the challenges faced by the educational sector and the need to provide and manage the services accordingly.

## **1.2 Theoretical Foundation of the Study**

The above section provides some background information of the study relating to the higher education sector which this study is based on. This section will continue with the

major premise of this study, the basis for speculating the possible solution to the problem at hand, that is, the theoretical knowledge to this study.

Theories have been created to explain, predict and master relationships, events or behaviour. A theory actually generalises observations. As stated by May (1993), theory will reflect thinking, as such it will help researchers in making decisions and sense of the world which surrounds them. A theory, when linked to research, indicates a data collection process with a specific purpose that can be explained (May, 1993). In discussing student satisfaction, it has been observed that students vary with regards to their level of satisfaction of their educational experiences. These observations can be linked to several theories of student satisfaction.

In order to better understand the psychological dynamics of student satisfaction, the “happy-productive” student theory of Cotton *et al's.*, (2002) indicates that the psychological factors of coping, stress and well-being mediate student satisfaction. Their findings produce evidence that students had a significantly higher level of psychological distress and lower levels of satisfaction. The levels of the psychological distress in university students were linked to the work environment such as high work pressure, low control and low support from students. The theory also indicates that the high levels of strains and dissatisfaction seem to have their roots in the structure of the students’ work and the resulting levels of satisfaction in turn predict the performance levels.

The relationship between student satisfaction, attrition and academic performance have been observed through the “investment model” by Hatcher *et al.*, (1992). This model indicates that satisfaction tends to increase when rewards in the form of grades are higher. In addition, when costs, for example, financial and time constraints are lower and alternate options of study are low, satisfaction was higher. This model actually helps to identify students at risk of dropping out, and counselling and other student support services can be offered to solve the problems. This can be seen as a preventive measure.

Another widely used theory is the theoretical approach based on consumer satisfaction. According to Churchill and Surprenant (1982), satisfaction is a function of the extent to which expectations when met with positive confirmations will lead to higher levels of satisfaction. In a university setting, this theory has been applied as it has been observed that when students’ expectations about the university are met with positive confirmations, they can lead to higher levels of satisfaction. Tinto (1982) develops a student integration theory of persistence or retention which is based on the relationships between students and the institutions. He put across that retention involves two commitments from the students, the goal commitment to obtain a college degree and the institutional commitment to obtain the degree at a specific institution. This perspective involves matching students’ motivation and academic ability and the institution’s ability to meet student expectations.

In discussing student motivation, several theories can be reviewed too as they can be linked to student satisfaction. Motivation has been referred to as the level of effort an

individual is willing to put in toward the achievement of a certain goal. Motivation also begins with an unsatisfied need. According to Biehler and Snowman (1993), motivation can be linked to the forces of arousal, selection, direction, and continuation of behaviour. From the definitions it can be seen that motivation is derived from within a person. As such, when linked to a university setting, it is the responsibility of the educational institutions to create conducive conditions that will enhance students' motivations to pursue active and positive academic goals over a long period of time. Therefore, towards motivation and making students satisfied and happy in their quest for knowledge, theories of motivation are worth discussing as they are related to this study from the behavioural view, the cognitive view, the humanistic view and the achievement motivation theory.

The behavioural view emphasises the reinforcement of desired behaviour by using the extrinsic rewards. As stated by Biehler and Snowman (1993), the behavioural interpretations to learning help to understand why some students react in a favourable manner to some subjects and not others. Social theorists emphasise the effects of students' identification and imitation of others, which result in their favourable academic outcomes. Psychologists have observed that overuse of extrinsic rewards such as praise and others may also lead to resentment and may cause dependency on the educators as such; their suggestion is to limit the negative effects of extrinsic rewards and to use them only when desired responses take place.

The cognitive view of motivation focuses on the arousal of cognitive disequilibrium as a way to motivate students in learning new things. When a student faces a problem, they

will desire to solve it. According to Piaget's theory of cognitive development (1983), a state of disequilibrium will be produced when a person experiences a discrepancy between something new and what they knew. They will then be driven to work towards achieving equilibrium. Cognitive theory actually highlights intrinsic motivation. When educators use intrinsic motivation methods correctly and can arouse the disequilibrium, the students will then appreciate learning for its own sake.

Abraham Maslow is the most cited humanistic psychologist. Maslow (1943), in his paper called *A Theory of Motivation*, presented the idea that human beings have complex needs and these needs are directed toward goal attainment. Maslow proposed a five-level hierarchy of needs beginning with physiological needs as the most basic, such as hunger, thirst and shelter; safety needs which refer to the desire to find a safe and secure physical environment; belongingness needs refer to an individual's desire to be accepted by their society or peers; esteem needs which refer to the desire to have a positive image as well as to have recognition from others; and self-actualisation, which is at the top of the pyramid, relates to the concern for the development of one's potential. In the university setting, students will tend to seek satisfaction and self-actualisation provided their basic needs for safety, relaxation, belongingness, and a clean and conducive environment are addressed accordingly. Educators and educational institutions, therefore, play an important role towards fulfilling and satisfying these basic needs. Identifying the needs to fulfil is not an easy task to the educators, and that is the premise of this study, that is, to identify and evaluate the drivers of student satisfaction.

The achievement motivation theory, on the other hand, states that most people want to achieve and experience levels of aspiration. The level of aspiration concept indicates that people who desire to succeed at the highest possible level would want to avoid failure at the same time. This need of achievement will be increased when a person experiences success. When students experience success, their need for achievement will be strengthened. Psychologists, however, observed that some females may fear success if it interferes with their relationships (McClelland *et al.*, 1958).

Further to the various theories of student satisfaction and motivation that explain the nature and extent of student satisfaction, many studies have also been conducted to measure the level of student satisfaction. In discussing the service quality and service quality models as the measurements to satisfy students, the most popular model has been the SERVQUAL model. It has been used by many researchers in many countries and in many industries including Malaysia (Ladhari, 2008). SERVPERF and many other models have also been used. The author of this thesis had reviewed the literature on the various models of service quality to measure student satisfaction and had accordingly identified a gap to be addressed in this study. The details of the review which led to the identification of the research gap will be presented in the literature chapter.

In light of this, this study hopes to extend the extant literature of student satisfaction by suggesting a conceptual framework, which is derived from engaging in the literature on student satisfaction, based on the service-product bundle model. The aim of this study is

to identify and evaluate the drivers of business student satisfaction in the Malaysian private educational environment.

### **1.3 Research Motivation**

The author is particularly interested in the area of student satisfaction and it has been the phenomenon of interest since she started her teaching profession. This is one of the constructs which is the pulling factor that keeps her motivated and the time has come for the author to actually identify the drivers of business student satisfaction. According to Ramsden (1987), if we want to describe what students do, we ought to understand their learning experiences. Marjoribanks (1991) further states that if educators want to be successful in stimulating students' learning then they have to understand the formidable intricacies of the undertakings. Understanding the students' needs and the drivers that influence the students towards their learning process will help educators to address those needs better, and therefore, enhances the teaching and learning interaction.

It is the personal aspiration of the author to be able to understand how to create conducive learning environments for the students and thus, produce more positive outcomes from the interaction. Students are constantly evaluating the level of services as such; capturing those "moments of truth" during the service encounters can produce many discoveries worth looking into. The way towards understanding students and their levels of satisfaction is to conduct a study and to continuously monitor the situation. The author also hopes that this study is the starting point of more future studies and eventually to be

able to develop a corpus in this area as a form of her contributions to the world. The following section addresses the context of this study.

#### **1.4 Research Context**

Education is a growing industry in Malaysia and the country is gaining acceptance as an established study destination in the region. The education sector offers a variety of higher educational programmes as well as professional and specialised skill courses that are priced in a competitive manner and of high quality. In relation to this is the existing trend of setting up branch campuses in Malaysia by reputable universities from the UK and Australia. These universities offer undergraduate and postgraduate programmes identical to those of the overseas main campus. Monash University, Australia was the first branch campus to be set up in Malaysia in 1998; followed by Curtin University of Technology, Australia in 1999; The University of Nottingham, UK in 2000; Swinburne University of Technology, Australia in 2004; and the fifth one is Newcastle University Medicine, UK in 2009 (Education in Malaysia, 2010).

In addition are the twinning, franchised and external degree programmes in partnership with Malaysian educational institutions and various universities from the UK, USA, Canada, Australia, France, Germany, and New Zealand. Among the participating universities are University of Tasmania, Australia; RMIT University, Australia; University of New Castle, Australia; Oxford Brookes University, UK; University of Birmingham, UK; University of Hertfordshire, UK; University of Sheffield, UK;



University of Reading, UK; California State Polytechnic University, Pomona, USA; Universite de Toulouse, Le Mirail, France and many others.

In this thesis, business student satisfaction in the Malaysian private educational environment will be examined. The Malaysian higher education sector has become a centre of educational excellence in Asia. The Malaysian government is committed towards education. As such, the education sector has always enjoyed the highest national development budget as compared to other sectors such as agriculture, tourism, and the youth and sports sector among others. From the 2012 Budget recently announced, RM 50.2 billion has been allocated for the education sector as compared to RM 420 million for the tourism sector, RM 1.1 billion for the development of the agricultural sector, and RM 415 million for the youth and sports sector respectively (New Straits Times, 8 October, 2011).

Both public and private educational institutions play an important role in providing tertiary education to Malaysian youth and adults. The higher education sector is under the jurisdiction of the Ministry of Higher Education (MOHE). The national quality agency, the Malaysian Qualifications Agency (MQA) has been approved by the Parliament to implement the Malaysian Qualifications Framework (MQF) covering both public and private higher educational institutions. The MQA is one of the agencies under the MOHE. Its role is to implement the MQF as a basis for quality assurance in higher education as well as be a reference point for the criteria and standards for national qualifications (MOHE, 2009).

In Malaysia, private educational institutions play a major role in attracting international students to enrol and study. The private higher education sector consists of private colleges, private universities, university colleges and foreign university branch campuses, as well as distance learning centres. The main feature of these institutions is that they self-generate their resources from shareholders' funds, students' fees and business activities related to the education business (Soon, 1999). As such, they must be sustainable if they are going to survive. Fifteen private universities, 18 private university colleges, 5 foreign university campuses, and 488 private colleges in Malaysia were registered with the Ministry of Education in 2007 (MOHE, 2010).

The total number of students enrolled in higher educational institutions stood at 1,134,134 in 2010 (please refer to Table 1.1). A drop of about 4.5% from the year 2001-2005 was due to economic downturn. The market share of the private educational institutions, however, stood at 49.9% in 2010. Private higher education institutions have contributed enormously to the Malaysian economy via foreign exchange earnings from the influx of foreign students, which is currently made up of 86,923 international students from 141 countries (MOHE, 2010). From the figure, 62,709 students (72%) are enrolled at the private educational institutions and only another 28% at the public educational institutions (please refer to Table 1.2). The majority of the international students coming to Malaysia are from Iran, Indonesia, and China respectively. Malaysia is currently the world's 11<sup>th</sup> most preferred destination for international students (MOHE, 2010).

Table 1.1 Number of Students' Enrolment in the Malaysian Higher Educational Institutions from (2001-2010)

Institutions	Year		
	2001	2005	2010
Private Institutions	270,904	258,825	565,403
Public Institutions	304,628	307,121	462,780
Polytechnics	51,839	78,834	87,751
Community Colleges	1,108	9,873	16,200
Total	628,479	649,653	1,134,134

(Source: MOHE, 2007, 2010)

Table 1.2 Number of International Students' Enrolment in the Malaysian Higher Educational Institutions from (2002-2010)

Institutions	Year		
	2002	2005	2010
Private Institutions	22,827	33,903	62,709
Public Institutions	5,045	6,622	24,214
Total	27,872	40,525	86,923

(Source: MOHE, 2007, 2010)

The educational environment in Malaysia is very dynamic, competitive, and challenging and this situation is also confronting private educational institutions. In addition, with an official ranking system, the private educational institutions are being publicly compared, meaning that understanding student satisfaction is very important. Effective of May 2010, all higher education institutions in Malaysia are required to take part in the Rating System for Malaysian Higher Education Institutions (SETARA) to further enhance the quality of the education. A total of 25 criteria, including questions on student satisfaction, were captured through 82 indicators consisting of the generic framework of input, process and output and benchmark figures, were established for the indicators. The rating system uses a six-tier category with Tier 6 identified as Outstanding and Tier 1 as weak. The final

results indicated that out of 47 universities and university colleges rated, 18 institutions achieved a Tier 5 category, 25 institutions in Tier 4, and 4 in Tier 3. None of the institutions appear in Tier 6 or in Tiers 1 and 2 (University World News-Malaysia, 2009).

With regards to the ranking system and the inclusion of questions on student satisfaction, Letcher and Neves (2010) indicate that the findings by psychologists revealed student satisfaction helps to develop self-confidence which will lead towards developing their skills, and acquiring knowledge. This shows the importance of understanding the drivers of student satisfaction. This study examines undergraduate business satisfaction in the Malaysian private educational environment. The business programme seems to be a popular choice among students in Malaysia as compared to other programmes (MOHE, 2007). As stated by Ayob and Yaakub (1999), the private higher education responded to the government's call to deliver a curriculum that is relevant to a nation and that is why the curriculum is heavily biased towards business and technological subjects as these two are considered important ingredients towards material progress.

## **1.5 Essence of the Research**

As stated earlier, the educational environment is very dynamic, challenging and competitive. As such, understanding student satisfaction and providing quality education has become increasingly important to educational institutions. In response to that, this study goes beyond just examining student satisfaction as it also addresses the perceptions of the students of the specific attributes at an educational institution; identifies and evaluates the underlying dimensions of the satisfaction drivers as well as examine the

influence of the demographic factors such as gender, nationality, year of study, programme of study, and the semester grade have on the results. Many studies throughout the world, including Malaysia have used SERVQUAL model and SERVPERF to measure customer satisfaction and student satisfaction. This study, however, adopted and extended the “service-product bundle” model outlined by Sasser *et al*’s., (1978) and Douglas *et al*’s., (2006) to measure students’ satisfaction levels and their perceptions of the drivers that are important to them. Further discussion on this issue and the reasons for the adoption of this model will be presented in chapter two of this thesis.

The service-product bundle refers to the inseparable offering of many goods and services, and consists of three elements such as the physical or facilitating goods; the sensual service provided-the explicit service; and the psychological service-the implicit service. The bundle provides a more comprehensive understanding of the needs of the students than most other models evaluated and is therefore more suitable for the education sector. Even though teaching is the core service, other supporting and facilitating elements can help to enhance the interaction and make learning conducive.

In order to identify the areas of service priority towards better allocation of resources, satisfaction-importance grids will be developed and then evaluated through quadrant analysis, a graphic technique used to analyse importance and attribute ratings (Dillon *et al.*, 1993). This tool will assist service providers to allocate their resources in a more efficient manner. Martilla and James (1977) were the first to apply the importance-performance analysis to the elements of a marketing programme. This technique can

produce good insights to the management of educational institutions to identify areas that may be utilising too many resources. Presentation of the results on the grid helps management to interpret the data and will enhance their usefulness in making strategic marketing decisions towards satisfying the students. Joseph and Joseph (1997) use this analysis in higher education and utilise a sample of final year students at a New Zealand university. O'Neil and Palmer (2004) use this analysis on a sample from Australia and Douglas *et al.*, (2006) apply this analysis in their studies using samples drawn from the UK. Ford *et al.*, (1999), on the other hand, conduct cross-cultural comparisons between samples from New Zealand and the USA.

## **1.6 Research Aim and Objectives**

This section addresses the aim and objectives of this study. The main aim of this study is to identify and evaluate the drivers that influence business student satisfaction in the Malaysian private educational environment. More specifically, the research objectives are to:

- i) review the literature in the area of student satisfaction to help identify the drivers of student satisfaction (discussed in the literature chapter);
- ii) measure the influence that each driver has on business student satisfaction and the importance of each driver to students (addressed in the results chapter);
- iii) identify the underlying dimensions of the satisfaction drivers that influence business student satisfaction (addressed in the results chapter);

- iv) evaluate the influence of factors such as gender, year of study, programme of study, semester grade, and nationality have on the results (addressed in the results chapter) ;
- v) identify the areas of service priority towards better allocation of resources (discussed in the results chapter); and
- vi) discuss the practical implications of the study (elaborated in the conclusion chapter).

## **1.7 Research Methodology**

A positivist approach is adopted in this study towards achieving the research aim and objectives mentioned in the earlier section. Table 1.3 provides an overview of the research methodology used in this study. The table shows that this study utilises both secondary and primary data to evaluate business student satisfaction in the Malaysian private educational environment.

This study is adopting a survey methodology through the distribution of questionnaires to 1,200 undergraduate business students at four private educational institutions in Malaysia. Statistical analyses such as descriptive statistics, factor analysis, ANOVA, and independent t-tests will be used to analyse the data collected in the study. In addition, the use of quadrant analysis will help identify areas where educational institutions could better allocate resources. More details of the research methodology used in this study will be discussed in chapter three of this thesis.

Table 1.3 Research Objectives and Methods

Objectives	Methods
To review the literature in the area of student satisfaction to help identify the drivers of student satisfaction	Secondary data through literature search
To measure the influence that each driver has on business student satisfaction and the importance of each driver to students	Survey through questionnaire. Statistical analysis which include descriptive such as mean, standard deviation have been computed as well as the reliability test
To identify the underlying dimensions of the drivers that influence business student satisfaction	Factor analysis with principal component analysis and orthogonal method of rotation (VARIMAX) adopted
To evaluate the influence of factors such as gender, year of study, programme of study, semester grade, and nationality have on the results	Survey through questionnaire. Statistical analyses used include Analysis of Variance (ANOVA) and post hoc comparison (Bonferroni method) where significance differences existed on the independent variables of year of study, programme of study and the semester grade. Independent t-tests have been used on the analysis of gender and nationality as the independent variables
To identify the areas of service priority towards better allocation of resources	The mean of the satisfaction and importance drivers have been used to develop the quadrant analysis (the satisfaction-importance grid)
To discuss the practical implications and contributions of the study	Discussed in the conclusion chapter

## 1.8 Significance of the Study

Even though there are many studies on student satisfaction in general, the author seeks to identify and evaluate the drivers that influence student satisfaction in the Malaysian private educational environment due to several reasons. This study will provide significant contribution to business schools of private educational institutions and educational institutions in general. The outcomes will enable the educational institutions to develop better teaching and learning mechanisms as well as to extend the knowledge-base towards their professional practice. A better and clearer understanding of the



complexities of the teaching and learning, both explicit and implicit, can be achieved through this study. In addition it will help to identify strategies that will result in a more effective and efficient allocation of the university's resources.

The current competitive educational environment in Malaysia and the worldwide university system make this research particularly significant. Understanding the drivers of student satisfaction, the perceptions of the students of the drivers, the underlying dimensions of the satisfaction drivers, and the influences of the demographic factors can help the educational providers to enhance their quality education and service levels. The educational institutions can also provide interesting and exciting learning experiences to the students. According to Kotler (2008), customers have to be energised. Students are evaluating the educational services and their experiences will determine their level of satisfaction. In view of that, the service environment needs to be increasingly innovative and competitive. Lovelock *et al.*, (2007) clearly state that education is an example of mental-stimulus processing and the important implication here is that students as customers are concerned with, and affected by, the manner in which it is provided as well as what is provided. The results of this study can also help to enhance the teaching staff development programmes and hence, make teaching a respectable profession.

As Malaysia aspires to achieve educational excellence through its globalization and internationalization policies, further understanding of the needs of the international students is critical as this can facilitate the educational institutions to develop strategies to attract and strengthen student mobility to the country. This study will address that issue

too. Student satisfaction, as seen by Oliver and De Sarbo (1989), is the student's subjective evaluation of the various outcomes and experiences associated with education and it relates to a favourable evaluation. It is being continuously shaped by repeated experiences in campus life. Ramsden (1991) is of the opinion that student satisfaction provides a useful indicator of the quality of teaching performance, and hence, can be considered as the outcome measurement of the education process.

## **1.9 Structure of the Thesis**

This thesis consists of five chapters. The following paragraphs will provide an overview of the subsequent chapters of this thesis.

Chapter 2 focuses on the discussion of various literatures relating to student satisfaction and the perceptions of the importance of the factors to the students. This chapter begins with a discussion on the role of students in educational institutions, provides several definitions of student satisfaction, examines student experience, explains the concept of service quality and why it is important for this study, evaluates the service quality models as well as other models used to measure student satisfaction, presents the research gaps, explains the demographic variables, the importance issues, followed by the quadrant analysis.

Chapter 3 will explain and justify the research philosophy adopted in this study. The epistemology, theoretical perspective, methodology, and methods used will be discussed. Justifications will be provided on the choice of positivism as the theoretical perspective

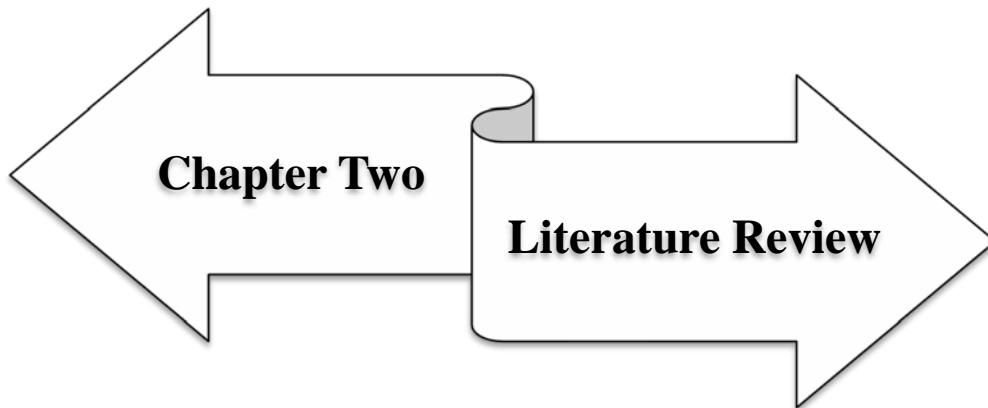
of this study as well as highlighting its strengths and weaknesses. The chapter will also present the conceptual framework of the study; discuss the research design issues; which include the sampling design, the reliability and validity analyses, and the data analytical strategy. The ethical issues will also be discussed.

Chapter 4 will present the results of the study. This is the chapter that will put theory into practice whereby the data collected will be subject to various statistical tests before deriving the findings and presenting them accordingly.

Chapter 5 will use the findings from the earlier chapter to address the research aim and objectives set earlier and to arrive at the conceptual conclusion. Implications and contributions of the study as well as limitations of the study will then be addressed, followed by suggestions for future research.

#### **1.10 Chapter Summary**

In summary, this introduction chapter has provided the direction of the study by highlighting the importance of understanding student satisfaction, followed by presenting the background information of the problem and its development. The theoretical foundation of the study was then discussed leading to the impetus of the study. From here, the research context, essence, aim and objectives were discussed. The significance of the study has been provided too before presenting the structure of the thesis. The subsequent chapter will review the literature that answers the “so what” of the study.



## **2.0 Introduction**

This chapter commences by exploring the role of students in educational institutions. The focus of this study is on measuring business student satisfaction; therefore, it has recognised the fact that students have the right to engage in providing critical feedback. The section will include the arguments for and against the “student-as-customer” concept. Eagle and Brennan (2007) suggest that understanding the “student-as-customer” concept can further be enhanced by educating students on the importance of the role that they play in the higher education system. That is, to be informed customers in a complex and dynamic co-production process and environment. Various definitions of student satisfaction will then be presented and service quality issues discussed.

In order to identify and evaluate the drivers of student satisfaction, it is important to understand and evaluate the service quality models, such as SERVQUAL, SERVPERF and others. The criticisms, strengths and weaknesses of these models, in particular, will be uncovered and presented. The author will also discuss the research gaps and the reasons for adopting and extending the model used in this study. Literature on the drivers of students’ satisfaction and perceptions, the demographic variables and the adoption of the quadrant analysis towards better allocation of resources for the educational institutions will be also reviewed and presented.

## **2.1 The Role of Students in Educational Institutions**

Evaluating the role of students in educational institutions is critical to measuring their level of satisfaction, which is the focus of this study. Even though exploring the issue of “student-as-customer” is not one of the objectives of this study, placing emphasis on student satisfaction recognises the fact that students are customers and they have the right to engage in giving their feedback. Some arguments for and against the “student-as-customer” concept will be briefly explored and presented, as the author believes this will set the scene for more discussion on satisfaction.

Sax (2004) is of the opinion that a bond is founded on familiarity and trust, a principle that existed in the early universities. This same principle can be applied to universities’ relationship with current students. He further states that the relationship between students and the institutions can be more personal and lasting with new technologies. Other authors such as Hennig-Thurau *et al.*, (2001) suggest that students are not passive recipients of educational services and through their participation in the learning activities, are actually “co-producers” of their education.

Joseph and Joseph (1998) suggest that students are the primary beneficiaries of education, and as such, they should be treated as customers. This is because the educational environment is very competitive and in view of that, educational institutions have to develop aggressive strategies to satisfy students’ needs and enhance their market share. Kotze and Plessis (2003) also agree that students participate in an array of learning activities and they in fact “co-produce” their education by contributing to their own

satisfaction, quality, and value perceptions. Nejati *et al.*, (2009) state that educational institutions have to pay special attention to the students as their main customers and to provide quality services that will satisfy them.

Yeo (2008) provides two views of students as customers. Institutions that regard students as the primary customers tend to link them as being involved in the input as well as output of the learning process. These institutions will develop strategies which will satisfy students' needs in order to be competitive. On the other hand, institutions that regard the potential employers of the students as the primary customers will consider the economic reality of the situation and will develop the content of the lessons based on the needs of the employers as they believe that students have no conception of what they need to learn. In the same vein, Brennan and Bennington's (1999) study from the Australian perspective indicates that students are not customers and that a variety of interests must be served by the higher education industry. Authors such as Albanese (1999) and Parsell (2000) also argue that students should not be treated as customers. The authors conduct studies on medical education and their rejection of the "student-as-customer" concept does not indicate lack of involvement of the students. They, however, suggest that the student's role should be more of "learning worker" who has been empowered to participate in the educational process in a more positive and productive manner.

Eagle and Brennan (2007) examine the implications as well as consequences of the "student-as-customer concept" within the context of the dynamic university education

environment. They then propose that the “student-as-customer” concept could be adopted, provided a careful adoption of the term would lead to retaining the positive aspects: that is, promoting the legitimate interests of the students and at the same time to avoid the negative aspects of giving the students the idea that “the customer is always right”. Finney and Finney (2010) view the role of students in educational institutions in relation to the “exchange theory” and this produces some interesting insights. Some students simply exchange money for goods and services and this means that the students view their input as no more than the payment of tuition and fees in exchange for getting their grades and the qualification. Some students may view the exchange in a more meaningful manner which means that they contribute to the exchange process and they acknowledge the fact that they are the co-producers of the learning process. These two different philosophies will lead to different attitudes of the students at the educational institutions. Hart and Coates’ (2010) study on international student complaint behaviour suggest that East Asian students behave more like customers and provide feedback to the university when they are dissatisfied.

Oldfield and Baron (2000) propose that institutions should focus on what their students want instead of just making decisions based upon what the institutions perceive their students find important. In relation to that, Joseph *et al.*, (2005) observe and state that research on service quality in higher education tends to rely too much on inputs from the academic insiders instead of the students. Douglas *et al.*, (2006) are of the opinion that with regards to any monitoring of higher education quality, educational institutions should give priority to the student’s experience and its improvements. This study is



measuring the level of business student satisfaction; as such; evaluating the arguments presented in this section could help to understand the role of the students better. De Shields *et al.*, (2005) put across the point that even though some researchers do not see “students-as-customers”, this does not change the fact that without students, the educational institutions would not have customers to serve. All the arguments discussed in this section indicate that both the students and the educational institutions have to be clear of their roles and the concepts have to be well-explained and interpreted so as to be meaningful in their implementation. The following section will proceed with this issue by providing the views and definitions of student satisfaction.

## **2.2 Student Satisfaction**

Higher educational institutions are putting a lot of emphasis on understanding and attempting to improve student satisfaction due to current competitive pressures in the industry. Researchers (such as Rowley, 2003; and Tapp *et al.*, 2004) agree that higher educational institutions will benefit from developing relationships with the students as this would provide an edge over competitors. Popli (2005) and Richardson (2005) however, state that before establishing the relationships, it is very important for the educational institutions to understand the factors that actually influence the students’ satisfaction. Alves and Raposo (2009) add that understanding the formation process of student satisfaction, and the valid as well as reliable ways to measure it, is the task of educational institutions. Reliable measurements of student satisfaction will enable educational institutions to have a clear view of their existing situation, compare with other educational institutions and analyse their evolution continuously.

Many researchers including Navarro *et al.*, (2005a, b) and Richardson (2005) are of the opinion that student satisfaction is a complex and multi-dimensional concept. Hartman and Schmidt (1995) agree that the multi-dimensional nature of satisfaction is unanimously acknowledged for services in general and in higher education in particular. According to Elliot and Shin (2002), student satisfaction refers to a student's favourable subjective evaluation of the various outcomes and experiences with education and is being shaped continually by the repeated experiences with the campus life. Elliot and Shin (2002) further states that student satisfaction can also have a favourable impact on fundraising activities and student motivation.

Student satisfaction is a short-term attitude that results from the evaluation of their experience with the education services rendered (Elliot and Healy, 2001). Students are involved in a continuous service encounter. Students are also constantly interacting with other students and engaged in both positive and negative word-of-mouth. This situation indicates that their opinions and perceptions are constantly changing (Rowley, 1996). Any analysis of student satisfaction has to take this into consideration. Hatcher *et al.*, (1992) express that student satisfaction is the attraction, pride, or positive feelings students develop towards a programme or an institution. Navarro *et al.*, (2005a, b) view student satisfaction as the final state of the psychological process. Hon (2002) refers student satisfaction to an experience of fulfilment of an expected outcome. Brown *et al.*, (1998) discover that students' evaluation of the quality of the course and other curriculum-related factors associated with a university lead to global satisfaction within a

university. Borden (1995), as well as Elliot and Shin (2002), find and agree that student satisfaction is linked to the association between student priorities and the environment of the campus. Telford and Masson (2005) believe that satisfaction in the higher educational institutions can be a measure of effectiveness to the providers.

Petrzellis *et al.*, (2006) see student satisfaction as resulting from students' assessment of a service based on comparing their perceptions and expectations of the service delivery. Sweeney and Ingram (2001) define student satisfaction as the perception of enjoyment as well as accomplishment associated with the learning environment. Mai (2005) surveys students in the US and in the UK and views student satisfaction as the overall feeling or as satisfaction associated with the elements of the transaction. Wu *et al.*, (2010) studied satisfaction within the blended e-learning field and they are of the opinion that student satisfaction refers to the total students' behavioural beliefs and attitudes resulting from aggregating all the benefits that students derive from using the blended e-learning system. Wiers-Jenssen *et al.*, (2002) state that the approaches used in measuring student satisfaction may be a tool to connect the traditional and the academic views on how to enhance higher education, and towards more market-orientated perspectives. Table 2.1 presents a summary of various definitions of student satisfaction.

Table 2.1 Summary of Definitions of Student Satisfaction

Author/ Year/ Title	Journal	Definitions of Student Satisfaction
Hatcher <i>et al.</i> , (1992) “Predicting college student satisfaction, commitment, and attrition from investment model constructs”	Journal of Applied Social Psychology	Student Satisfaction is the attraction, pride, or positive feelings students develop towards a programme or an institution.
Borden (1995) “Segmenting student markets with a student satisfaction and priorities survey”	Research in Higher Education	Student Satisfaction is linked to the association between student priorities and the environment of the campus.
Elliot and Healy (2001) “Key factors influencing student satisfaction related to recruitment and retention”	Journal of Marketing for Higher Education	Student Satisfaction is a short-term attitude that results from the evaluation of their experience with the education services rendered.
Sweeney and Ingram (2001) “A comparison of traditional Web-based tutorials in marketing education: An exploratory study”	Journal of Marketing Education	Student Satisfaction refers to the perception of enjoyment as well accomplishment associated with the learning environment.
Hon (2002) “Applying customer satisfaction theory to community college planning of student services”	iJournal: Insight in student services	Student Satisfaction refers to an experience of fulfilment of an expected outcome.
Elliot and Shin (2002) “Student satisfaction: An alternative approach to assessing this important concept”	Journal of Higher Education Policy and Management	Student Satisfaction refers to the student’s favourable subjective evaluation of the various outcomes and experiences with education and is being shaped continually by the repeated experiences with the campus life.
Mai (2005) “A comparative study between UK and US: The student satisfaction in higher education and its influential factors”	Journal of Marketing Management	Student Satisfaction is the overall feeling or satisfaction associated with the elements of transaction.
Petrzellis <i>et al.</i> , (2006) “Student satisfaction and quality of service in Italian universities”	Managing Service Quality	Student Satisfaction results from students’ assessment of a service based on comparing their perceptions and expectations of the service delivery
Wu <i>et al.</i> , (2010) “A study of student satisfaction in a blended e-learning system environment”	Computers and Education	Student Satisfaction refers to the total students’ behavioural beliefs and attitudes resulting from aggregating all the benefits that students derive from using the blended e-learning system.

The definitions in Table 2.1 indicate that students are evaluating their interactions with the educational institutions and their expectations are always linked to outcomes. It is the responsibility of the management of the educational institutions to give priority towards student satisfaction if they want to survive and be competitive. This study defines business students' satisfaction resulting from their interaction with the physical and facilitating goods; the explicit services as well as the implicit services. In measuring the level of business student satisfaction, this study is not examining student experience as a separate construct, but will consider the overall teaching and learning environments in educational institutions as providing student experiences. The following section examines the issue.

### **2.3 Student Experience**

According to Shah and Nair (2011), student experience and satisfaction matter to educational institutions and students. Students are important to universities; as such; their experiences or knowledge and understanding of the educational institutions must reflect their voices or judgment rather than as defined by the universities. The authors also indicate that measuring student experience using both satisfaction and importance ratings will enable the educational institutions to identify their current level of service quality. This is what this study hopes to achieve and this aim is reflected in one of the objectives. Harvey *et al.*, (1992) indicate that the main factor in assessing quality in higher education is the student experience. He further states that this is not restricted to student's experience in the classroom but includes the total experience at the educational institution. In fact, the term was coined by Harvey in 1992. The term has been

extensively used after that. According to Thompson (2000), total experience includes teaching and learning; curriculum; student life; advising; and mentoring. Student experience indicates experience with teachers, classes, and other aspects of university life such as administrative practices and staff, physical characteristics of academic facilities, social environment, and advising support (Sohail and Shaik, 2004; Thomas and Galambos, 2004). Savani (2003) points out that a student's overall attitude and perception towards the educational institution is seen as the main issue in determining the total student experience.

De Shieds *et al.*, (2005) conduct a study on the determinants of student satisfaction and retention in a college or university with the assumption that the factors have an impact on students' college experiences. The study adopted a modified version of the questionnaire developed by Keaveney and Young (1997) and was administered to around 160 undergraduate business students at a state university in South Central Pennsylvania, USA. Using 18 independent variables, the variables represent six -higher order dimensions such as faculty, staff advising, classes, student partial, college experiences, satisfaction and intentions. The results were analysed using path analysis. The results show that the path coefficients from faculty and classes to students' partial college experiences are consistent with assumption that the factors influence student partial college experience. The results also indicate that students who have positive college experiences are more likely to be satisfied with the college or university than students who do not have positive student experiences. The study provides empirical findings to help understand student experience and student satisfaction, but as stated earlier, the

sample is only from one university and in addition, the sample size is not large enough to generalise the results. As also stated earlier, this thesis is not examining student experience as a separate construct but will consider it as the general teaching and learning environments experienced by the students that will lead to their assessments of their satisfaction and perceptions of the service attributes of the educational institutions.

According to Sanchez *et al.*, (2007), rendering quality service is a key for success and can be the most powerful competitive tool reshaping marketing and business strategy. Over the years too, service quality has been linked with increased profitability. This thesis considers service quality as one of the issues of concern, as towards measuring student satisfaction requires adopting suitable service quality model. The following section examines the views of service quality.

## **2.4 Service Quality**

Service quality has generally been seen as a global attitude or judgment which relates to the distinctiveness of a service. The views on service quality in general, service quality in higher education, and service quality and student satisfaction will be presented in the following section.

### ***2.4.1 Service Quality in General***

Quality management has been recognised as one of the tools towards enhancing business performances and many organisations have developed quality enhancement initiatives in order to be competitive. In fact, the quest for quality and its enhancement has become a

highly desired objective in the current competitive environment. Quality can be divided into product and service quality. Product quality simply means assessing whether the product functions as promised. Service quality, on the other hand, encompasses all the elements involved towards delivering a product or service. The following are the views of service quality.

Grönroos (1984, p.37) defines perceived service quality as “the outcome of an evaluation process, where customers compare their expectations with the service they have received”. Parasuraman *et al.*, (1988) support this view as they also see service quality as a form of attitude, related but not the same as satisfaction, which results from comparing customer’s expectations and perceptions of performance. They further state that expectations refer to what the customers feel that organisations *should* provide and not *would* provide. Zeithaml (1988) refers service quality to the customer’s evaluation of the overall excellence and distinctiveness of the service. Many organisations, including educational institutions, have actually developed programmes that elicit customers’ evaluation of service quality. Cronin and Taylor (1992) however, argued that to conceptualise service quality as a gap between expectations and performance is insufficient. They also put across the confusion in literature with regards to the relationship between service quality and consumer satisfaction. They suggested that the concept of service quality should just be focusing on customer’s attitude towards the service, since the concept of satisfaction addresses the gap between expectations and perceptions of performance.



Further views of service quality see the concept emerging as the frontier of competition. Brown and Swartz (1989) states that companies that attempt to provide high levels of service quality want to have an edge over their competitors. The authors further state that in order to have an edge over competitors, the companies have to evaluate the gaps between the providers and the customers so as to understand how the evaluation occurs. The importance of the various components of the service encounter to the outcomes of the evaluation has to be identified too. Sherden (1988) states that organisations that achieve a high level of service quality will have an edge over their competitors through value-added differentiation; enhanced productivity; as well as improved human resource environment. The author sees service quality as a relationship, and the relationship involves the personal relationship between the customer and the specific employee that the customer has contact with. The author further states that the firm's overall service quality is determined daily, moment by moment and, as such, a culture and ethics of high service quality has to be instilled in each employee. The role of the management is to ensure that a customer's experience is in line with expectations since the actual level of service quality is formed in the customer-employee relationship.

Li and Kaye (1998) are of the opinion that service quality deals with the environment, corporate image and interaction among people. Service quality according to Kasper *et al.*, (1999) is the extent to which the service process and the service organization can satisfy the expectations of the user. According to Sarrael (2008), service quality focuses on satisfying customers' needs during "moments of truth" or service encounters or experiences that make up a customer's perception of an organization. Kang *et al.*, (2002),

state that the essence of service quality is that it measures whether the delivery service level meets customer expectations. This is then related to customer satisfaction.

Service quality in higher education has received wide attention as well. As mentioned earlier, this study is looking from the students' perspectives and being the direct recipients of the educational services, the students' perception of the service quality has become an important issue to the institutions. This study will address the issue in the following section.

#### ***2.4.2 Service Quality in Higher Education***

The need for service quality in higher education from the students' perspectives has been discussed by many authors such as Joseph *et al.*, 2005; Oldfield and Baron, 2000; Russell, 2005; and Tan and Kek, 2004. They argue that higher education with the characteristics of being intangible, perishable, heterogeneous, and inseparable from the providers, can be classified as marketable service. They further state that with that, the education environment has become extremely competitive and students have and want more choices and they are very demanding. Therefore, educational institutions have to provide and monitor quality services in order to achieve student satisfaction and profitability.

Yeo (2008) states that in the education sector service quality involve linking teacher-student participation with professionalism-intimacy in an effort to positively affect intermediate and lifelong learning. He further states that service quality is complex, as it

is concerned with the physical, institutional and psychological aspects of higher education. Studies by Bauer (1992), Cheng and Tam (1997) and Pounder (1999) illustrate that, as with other services, the concept of quality can be interpreted in a number of different ways when applied to higher education. Cheng and Tam (1997) suggest that there is a strong emphasis on the pursuit of educational quality in ongoing educational reforms in both local and international contexts, and they introduce seven models that provide comprehensive frameworks for understanding and conceptualizing quality in education from different perspectives.

The seven models that the authors introduce demonstrate the different conceptions that can be adopted to deepen understanding of education quality as well as to develop management strategies. These multi-models of quality in education consist of the:-

- goal and specification model;
- resource-input model;
- process model;
- satisfaction model;
- legitimacy model;
- absence of problems model; and
- organisational learning model.

The goal and specification model considers education quality as the achievement of stated institutional goals and conformance to given specifications. The resource-input model regards education quality as the natural result of achievement of quality resources

and inputs for the organisation. The process model refers to a transformational process of converting inputs into performance and output. According to this model, a smooth internal institutional process allows the staff to perform the teaching task effectively and efficiently and students will be able to achieve fruitful learning experiences easily. The satisfaction model considers education quality as the extent to which the performance of an educational institution can satisfy the needs and expectations of its powerful constituencies consisting of students, teachers, management board, members, parents, alumni, and officers of various departments.

The legitimacy model regards education quality as the achievement of an education institution's legitimate position or reputation. The absence of problems model considers education quality as the absence of problems or troubles. This model stresses on identifying strategies for the improvement of an educational institution by analysing problems and defects and to work on solving the problems. The organisational learning model considers education quality as continuous development and enhancement. As the educational environment is dynamic, therefore, educational institutions have to deal with the environmental impacts and the internal process problems as these are the key issue in evaluating whether the educational institutions can provide continuous service quality. A closer look indicates that the models can form a thorough and comprehensive framework that could help the management of educational institutions to understand and conceptualise quality in education from different perspectives. This could also facilitate the development of management strategies for achieving and sustaining quality education.

Peters and Waterman (1982) define quality in education as excellence in education. Others, such as Feigenbaum (1951), equate quality education to value in education. Crosby (1979) and Gilmore (1974) on the other hand, say that it refers to conformance of education output to planned goals, specifications and requirements. Another definition by Sahney *et al.*, (2002) defines quality in education from a total quality management's (TQM) perspective. They conclude that TQM in education is multi-faceted and describe the foundation of an educational institution using a system approach, incorporating a management system, a technical system and a social system. It is clear that quality in education includes the quality of inputs in the form of students, faculty, support staff and infrastructure, the quality of processes in the form of teaching and learning activity, and the quality of outputs in the form of enlightened students that move out of the system.

Understanding and conceptualizing quality in education and developing managerial strategies for achieving and sustaining it is essential. Gold (2001) indicates that the quality issues should be the main concern of all employees at the educational institutions. This thesis evaluates service quality in higher education resulting from the students' perception of the educational institutions performance with regards to the physical facilities or technical quality as well as the functional or the interaction with the teaching and learning drivers.

### ***2.4.3 Service Quality and Student Satisfaction***

Many studies on student satisfaction tend to link to service quality because educational institutions will always strive to achieve excellence through quality education. In

addition, it is likely that satisfaction will also include perceptions of service product quality, university fees, as well as personal factors and situational factors. Moreover, to satisfy students is one of the aims of educational institutions as satisfied students are the source of competitive advantage.

According to Gold (2001), educational institutions should focus on student-centred education as students are considered the primary beneficiaries. Emery *et al.*, (2001) indicate that students should be evaluated as the product of educational institutions; as such; constant care has to be given to the students to make them happy and satisfied. Universities should also be conducting student satisfaction surveys to improve the quality of services offered to the students (Low, 2000). Many researchers conclude that service quality is being used in the educational sector because of its importance outcomes.

Low (2000) points out that by providing service quality, educational institutions will derive the source of attracting, satisfying, and retaining the students. This has direct impact on funding, job security and viability of the institutions. Bolton and Drew (1991) indicate that satisfaction is an outcome of service quality. Relating service quality to student satisfaction, Helgesen and Nasset (2007) state that the management of the educational institutions should focus on service quality, information, and facilities to increase satisfaction and loyalty of the students. Gruber *et al.*, (2010) indicate that student satisfaction will reflect the perception of service quality differences extended by the educational institutions. According to Alves and Raposo (2010), perceived quality develops a favourable image in the minds of students which subsequently leads them to

satisfaction. Based on the above discussions of service quality, Table 2.2 provides summary of some of the views of service quality and satisfaction.

Table 2.2 Summary of some of the Views on Service Quality and Satisfaction

<b>Author/ Year/ Title</b>	<b>Journal</b>	<b>Industry</b>	<b>Views on service quality and satisfaction</b>
Grönroos (1984) ‘A service quality model and its marketing implications’	European Journal of Marketing	Service companies- Banks, insurance companies, hotels, restaurants, shipping, airline companies, cleaning and maintenance, and others	The outcome of an evaluation process, where customers compare their expectations with the service they have received
Parasuraman <i>et al.</i> , (1988) “SERVQUAL: A Multiple-Item Scale for Measuring Consumer Perceptions of Service Quality”	Journal of Retailing	Appliance repair and maintenance, retail banking, long-distance telephone, securities brokerage, and credit cards	A form of attitude related but not the same as satisfaction, which results from comparing customer’s expectations and perception of performance
Zeithaml (1988) “Consumer Perceptions of Price, Quality, and Value: A Means-End Model and Synthesis of Evidence”	Journal of Marketing	Beverages	Customer’s evaluation of the overall excellence and distinctiveness of the service
Cronin and Taylor (1992) “Measuring Service Quality: A Re- examination and Extension”	Journal of Marketing	Banking, pest-control, dry cleaning and fast-food	Should be focusing on customer’s attitude towards the service, since the concept of satisfaction addresses the gap between expectations and perceptions of performance
Brown and Swartz (1989) “A gap analysis of professional service quality”	Journal of Marketing	Medical services	Companies attempting to provide high levels of service quality want to have an edge over competitors. Therefore, companies have to evaluate the gaps between the providers and the customers in order to understand how the evaluation occurs
Sherden (1988) “Gaining the Service Quality Advantage”	The Journal of Business Strategy	Financial services	Service quality is a relationship between the customer and the specific employee that the customer has contact

Table 2.2 Continued

Sarrael (2008) “Customer Satisfaction and Service Quality in High-Contact Service Firm”	DLSU Business & Economics Review	Education	Service quality focuses on satisfying customers’ needs during “moments of truth” or service experiences that make up a customers’ perceptions of an organisation
Yeo (2008) “Brewing service quality in higher education- characteristics of ingredients that make up the recipe”	Quality Assurance in Education	Education	Service quality involves linking teacher-student participation with professionalism-intimacy in an effort to positively affect intermediate and lifelong learning
Cheng and Tam (1997) “Multi-models of quality in education”	Quality Assurance in Education	Education	Suggest that there is a strong emphasis on the pursuit of quality in education in ongoing educational reforms. This applies in both the local and international context. Propose seven models of education quality
Gruber <i>et al.</i> , (2010) “Examining student satisfaction with higher education services- Using a new measurement tool”	International Journal of Public Sector Management	Education	Student satisfaction will reflect the perception of service quality differences extended by the educational institutions

From the views presented and summarised in the table, service quality has been recognised and adopted as one of the key factors in both the manufacturing and service sectors. Measurement and management of service quality has been the fundamental issue for survival as well as growth of organisations including educational institutions. Identifying and understanding how customers evaluate are important to ensure that the providers can match the expectations, hence, reducing the gaps that may arise. This study measures student satisfaction of the physical facilities and the facilitating goods and both the explicit and implicit drivers of the educational institutions. The perceptions of the students on the level of quality provided of the drivers and on education in general have to be the managements’ topmost priority if they want to be competitive.



Recognising the importance of service quality in organisations including educational institutions indicates the need for service quality models to measure the quality and the satisfaction levels. Many service quality models have been developed to measure satisfaction and the next section will present the evaluation of the service quality models.

## **2.5 Evaluation of Service Quality Models**

This section will begin with an evaluation of the most widely used model of satisfaction, SERVQUAL model, followed by SERVPERF model and other models of satisfaction. Some empirical studies will be discussed as well.

### **2.5.1 *SERVQUAL Model***

The SERVQUAL model developed by Parasuraman *et al.*, (1985) originally had ten dimensions consist of access, communication, competence, courtesy, credibility, reliability, responsiveness, security, tangibles, and understanding as well as knowing the customer. The model was developed to provide a generic instrument for measuring the level of service quality across a broad range of services. Based on the information from 12 focus groups of customers from service establishments such as retail banks, a long-distance telephone company, a securities broker, an appliance repair and maintenance firm, and credit card companies, Parasuraman *et al.*, (1985) discovered that customers evaluated service quality by comparing the expectations with perceptions of the ten dimensions.

Parasuraman *et al.*, (1988) later refined and filtered them to five quality dimensions namely: reliability, tangibles, assurance, empathy, and responsiveness. The SERVQUAL model has been highly valued and widely adopted in several types of service industries such as hospitals, banks, airlines, educational institutions, retail settings, telecommunications and others. SERVQUAL also has been widely used in countries such as the United States, Australia, China, South Africa, The Netherlands, Hong Kong, the UK as well as Malaysia (Ladhari, 2008). Even though it has been widely adopted and highly valued, it has received a lot of criticisms, which are discussed in the section that follows.

### ***2.5.2 Criticisms of SERVQUAL Model***

The measurement of service quality and satisfaction has created interests among service providers and scholars. This indicates the importance of service quality and satisfaction to the organisations, including educational institutions, in positioning their respective offerings. SERVQUAL model has been a popular and widely used model in which the creator identified ten dimensions and later refined them to five dimensions, as mentioned earlier. Despite its usefulness, a series of concerns have been raised and the criticisms are presented below.

Buttle (1996) put across his theoretical and operational criticisms of SERVQUAL, which include the point that the model is not able to draw on established economic, statistical, as well as psychological theory. His criticisms indicate doubts whether service quality should be assessed in terms of expectations and perceptions by customers, and also

doubts about the dimensionality and the universality of the five dimensions of the SERVQUAL model.

With regards to the theoretical criticisms, two major issues relate to the process orientation and dimensionality. According to a number of authors (Kang and James, 2004; Mangold and Babakus, 1991; and Richard and Allaway, 1993), the SERVQUAL model focuses on measuring the functional quality dimensions, as four of its five dimensions measure human interactions. As such, this may lead to biasness towards understanding consumer behaviour. They are of the opinion that the combination of both the functional and technical quality will lead to a better assessment of consumer behaviour. Ferguson *et al.*, (1999) see functional quality as the way customers experience the human interactions during the “co-produce” process and technical quality as the visible or physical tangibles used or experienced during the interaction. Buttle (1996) agrees that service encounters require both qualities to be assessed. Other authors (such as Asubonteng *et al.*, 1996; Hausman, 2003; and Kang and James, 2004) are of the opinion that customers might find difficulty in assessing the technical quality during the interaction as they do not have the technical competencies, and in view of that, might evaluate the service quality and performance based on the functional quality instead.

Sureshchandar *et al.*, (2002) also criticise SERVQUAL model as focusing too much on the human interaction and intervention in delivering the service and the tangibles of the service, such as design, decoration, the appearance of the equipment used by the service provider and the way in which the staff dress. The authors responded to the criticisms of

SERVQUAL by developing a model called the Human-Societal Element Model. Mostafa (2006) also criticised the SERVQUAL model for being too preoccupied with the psychometric and methodological soundness of the scales and he utilised other model instead in his study on the factors that influence service quality in higher education within an Arab context.

As for the dimensions, the context and the number of dimensions have been disputed. Carman (1990) and Hoffman and Bateson (2006) indicate that the five dimensions of SERVQUAL do not have statistical scrutiny. They are highly interrelated and their distinctions are questionable and not clear. Babakus and Boller (1992) as well as Chen and Ting (2002) add to this argument by saying that the five dimensions cannot be universally applied as a measurement to different industries because of the differences in the business operations and environment. Carman (1990) contributes by stating that to use SERVQUAL without any modification and validity check will lead to the problems of construct validity. Parasuraman *et al.*, (1988) respond to the criticisms and agree that modification on the context of the items in the model can be made to suit the industries under study but the items that are modified items have to be similar to the SERVQUAL items.

The rating scales as well as the process of administering the lengthy questionnaires are the major operational criticisms of the SERVQUAL model. Carman (1990) criticises the model for requesting the respondents to fill out the two sets of different questionnaires simultaneously as they relate to the expectation and the perception. Buttle (1996) and

Clow and Vorhies (1993) argue that both large and small gaps will result when expectation and perceptions are assessed simultaneously because customers will tend to have both positive and negative experiences. As for the rating scales, some researchers argue that the use of the seven-point Likert scale cannot differentiate the variations in the expectations and perceptions of the consumers. They also state that, in the event that a customer's expectation and perception' rating varies; the recorded measurements would not show any differences. There is however, no consensus on how to allocate the number of scale points in the Likert scale so as to maximise the reliability of the model.

### **2.5.3 *SERVPERF Model***

Another model has been developed in response to the strong criticisms on SERVQUAL model. The newer model, developed by Cronin and Taylor in 1992 is called SERVPERF model. The model was actually developed based on Performance Model Satisfaction of the SERVQUAL scale and by reducing the number of items and retaining the five quality dimensions. Basically the expectation items were deleted and not used at all. This model also received criticism for concentrating too much on the psychometric as well as the methodological soundness of its scales.

Cronin and Taylor (1994) respond to the criticisms by Parasuraman *et al.*, (1994) on their SERVPERF model by stating that the concerns raised do not have any substance but were based more on interpretation. Parasuraman *et al.*, (1994) raise issues that relate to the usefulness of their perceptions-expectations gap, which is the main thrust of their SERVQUAL model. Carrilat *et al.*, (2007) are of the opinion that SERVQUAL and

SERVPERF models are on equal basis as the valid predictors of overall service quality and the choice to use either model depends on the diagnostic purposes of the users. Fogarty *et al.*, (2000) suggest the use of The Rasch analysis in order to overcome the problems that might arise with regards to the scale dimensions. On the other hand, Mostafa (2006) indicates that the model is tested and used in developed nations only.

#### ***2.5.4 SERVQUAL and SERVPERF Models***

In summary, both models have its strengths and weaknesses. In terms of assessing the practical implication of the two models, it is important to evaluate which model can provide the diagnostic value and the most important information. In terms of explaining variance in customer satisfaction and the overall service quality, SERVPERF is more desirable but in terms of diagnosing problems SERVQUAL seems to be at the advantage since it looks at customer expectations. Satisfying customer needs is of paramount importance and that is the critical success factor of any businesses. SERVQUAL is able to provide customer expectations, which are required in making strategic decision and SERVPERF can also guide future decision making through the performance perceptions. Please refer to Table 2.3 for the comparison of SERVQUAL and SERVPERF models.

Table 2.3 Comparing SERVQUAL and SERVPERF Models

Issues	SERVQUAL	SERVPERF
Concept	Expectations and Perceptions of performance	Perceptions of Performance
Dimensions	Tangibles, reliability, responsiveness, assurance, empathy	Tangibles, reliability, responsiveness, assurance, empathy
Number of items	22 x 2	22
Major Strength	Able to diagnose problems as it considers customer expectations	Explaining variance in customer satisfaction and the overall service quality
Criticisms on	Theoretical (process and dimensionality) and operational (rating scales and administering the questionnaires)	Too much emphasis on the psychometric and methodological soundness of its scales

The criticisms presented indicate that the adoption of a generic scale for measuring service quality and satisfaction in all industries has been questioned. In addition, comparing expectations and perceptions simultaneously has generated much debate. Taking all the criticisms into consideration, this study measures business student satisfaction based on their perceptions only and will address the drivers that will relate to both the technical quality, which consists of the physical facilities and the facilitating goods and the functional quality, which consists of the teaching and learning drivers. Both models, SERVQUAL and SERVPERF tend to concentrate on functional quality. This study is using a five-point Likert scale in measuring business students as this is found to be more suitable instead of the seven-point Likert scale used in both models. Studies (Douglas *et al.*, 2006; Grönroos, 1984; and Licata *et al.*, 1995) adopted the same approach.

Other models of service quality and satisfaction will be discussed, but before that, the following section will present studies in Higher Education adopting SERVQUAL and SERVPERF models.

#### ***2.5.5 Studies in Higher Education adopting SERVQUAL and SERVPERF models***

This section provides some empirical studies on service quality and satisfaction using SERVQUAL and SERVPERF models in higher education settings which includes the UK, Europe, Canada, and some cross-cultural studies. Table 2.4 illustrates the studies conducted.

Cuthbert (1996a) conducted a study on managing service quality in higher education at Manchester Metropolitan University, UK. He reviewed several techniques and discovered that most focused on the teaching aspects of the students' experiences. He believes that the student experience involves more than just teaching and learning. His review led to the decision to modify the SERVQUAL model to make it applicable to a higher education context as, according to him, the SERVQUAL model is not appropriate for measuring student satisfaction in the higher education sector. Rather than using the seven-point Likert scale as in the original SERVQUAL model, he used a five-point Likert scale instead. The scale adoption is similar to this current study too. The questionnaire was divided into two parts; the first part is concerned with the students' expectations of higher educational institutions in general, while the second part is linked to the students' perceptions of Manchester Metropolitan University in particular. Each part consists of 22



questions. Just like this study, the questionnaires were distributed to students who already experienced the educational services. His sample consists of 134 undergraduate business students.

Table 2.4 Studies in Higher Education adopting SERVQUAL and SERVPERF Models

Author/ Year/Title	Journal	Methodology
Cuthbert (1996a,b) “Managing service quality in HE: is SERVQUAL the answer? Part 1”  “Managing service quality in HE: is SERVQUAL the answer? Part 2”	Managing Service Quality	Questionnaire distribution Modified SERVQUAL
Oldfield and Baron (2000) “Student perceptions of service quality in a UK university business and management faculty”	Quality Assurance in Education	Focus groups Questionnaire distribution Modified SERVQUAL
Bigne <i>et al.</i> , (2003) “Perceived quality and satisfaction in multiservice organisations: the case of Spanish public services”	Journal of Services Marketing	Focus groups Questionnaire distribution SERVPERF
LeBlanc and Nguyen (1997) “Searching for excellence in business education: an exploratory study of customer impressions of service quality”	International Journal of Educational Management	Focus groups Modified SERVQUAL
Soutar and McNeil (1996) “Measuring service quality in a tertiary institution”	Journal of Educational Administration	Questionnaire distribution Modified SERVQUAL
Athiyaman (1997) “Linking student satisfaction and service quality perceptions: the case of university education”	European Journal of Marketing	Focus groups Modified SERVQUAL
Prugsamatz <i>et al.</i> , (2006) “Comparing alternative instruments to measure service quality in higher education’, Quality Assurance in Education	Quality Assurance in Education	Questionnaire distribution SERVQUAL
Arambewela and Hall (2009) “An empirical model of international student satisfaction”	Asia Pacific Journal of Marketing	Questionnaire distribution Modified SERVQUAL
Mai (2005) “A comparative study between UK and US: The student satisfaction in Higher Education and its influential factors”	Journal of Marketing Management	Questionnaire distribution Modified SERVQUAL
Brochado (2009) “Comparing alternative instruments to measure service quality in higher education”	Quality Assurance in Education	Questionnaire distribution SERVQUAL, SERVPERF, HedPERF

Cuthbert's (1996b) results revealed higher average perception scores than expectation scores on every dimension with the exception of the tangibles. This means that the students gave high ratings for the staff and their relationship with the students as compared to other dimensions such as library, sport facilities, and computer facilities. His results also showed lower reliability coefficients than achieved by Parasuraman *et al.*, (1988) or later replication studies. The factor analysis results also did not support the original five SERVQUAL dimensions. Cuthbert (1996b) further suggests that a new instrument that focuses on just the educational element for course level quality assurance would be more appropriate than the SERVQUAL model.

Oldfield and Baron (2000) studied student perceptions of service quality in a UK university business and management faculty. The authors addressed two operational issues before applying the SERVQUAL-based survey in a university setting. First, on the wording of the questions that needs to be tailored to the specific service application using language understandable by the respondents. The second issue relates to addressing expectations and perceptions simultaneously. As the target population consists of students who had been at the university for at least six months; as such; the authors believe that the students might include their perceptions even when the questions require them to provide their expectations. Similar to this study, Oldfield and Baron (2000) chose not to measure expectations. The study was conducted in two stages of which the first stage consists of two undergraduate focus group sessions. The two groups consist of first year and final year students respectively.

A set of 24 SERVPERF statements was derived from the focus group sessions to be used in the stage two of the research. Stage two consists of the distribution of the questions to a sample of 333 students of a business and management faculty. A seven-point Likert scale was utilised. The results of the factor analysis, using varimax rotation yielded a three-factor solution which account for 51% of the variation. The three factors have been labelled as requisite (encounters which are important to allow students to fulfil their studies), acceptable (encounters which the students acknowledge as being desirable but not important) and functional (encounters of a practical nature). A comparison of the perceptions between the first year and the final year students shows that the perceptions of service quality elements change over the period of study. Acceptable elements seem to be gaining more importance.

As stated by Cuthbert (1996a, b), students' experiences are varied, continuous, over months and years and service experiences at higher educational institutions are complex. In this thesis, the perceptions of the students are evaluated too but the students are from three years of study that is year 1, 2 and 3 with the year 1 students from semester two onwards since this thesis focuses on the students' perceptions and not expectations. Other similarities include the use of focus group sessions and also the use of factor analysis to identify the underlying dimensions of the variables. With regards to the results of the factor analysis, the percentage of the variation is below the rule-of-thumb as stated by Hair *et al.*, (1998) which should be about 60%. This study is only restricted to one faculty only; as such; the results cannot be generalised.

Another study has been conducted by Bigne *et al.*, (2003) to evaluate the causal relationships between two constructs, perceived quality and satisfaction. The study adopts qualitative and quantitative approaches to achieve the objectives. The qualitative approach was conducted to decide on the context of the study, for which two public services were chosen, that is, the public hospitals and universities. SERVPERF scales were then utilised and the respondents consist of 275 users of six public hospitals and 333 students of the business administration diploma and degree at two universities in Spain. Data analysis begins by determining the dimensionality, reliability and validity of the scale that measures the perception of the core service followed by the analysis of the causal relationship between variables studied. With regards to the results of the public universities, the authors conclude that the perception of the core service quality (teaching quality) was dominant for overall quality but that does not indicate that the peripheral service quality (library quality, information attention quality, and registration quality) be neglected by the universities. The limitation of this study is that it is restricted to only two public services and the methodological limitation which allow the authors to use only one item per dimensions to measure the quality of the peripheral services due to the length of the questionnaire.

Towards searching for excellence in business education, LeBlanc and Nguyen (1997) conduct an exploratory study of customer impressions of service quality in Canada. The questionnaire was developed following a literature review and three focus group sessions with a total of 32 students. The questionnaire consists of 38 variables including items that correspond to the SERVQUAL dimensions. The sample size consists of 388 students

enrolled in the second and third year of the business programme. The results revealed that with regards to the level of satisfaction, 71% of the respondents indicate their satisfaction with the past experiences and 60% would recommend the business schools to others. The results of the factor analysis yielded a seven-factor solution consisting of faculty, reputation, physical evidence, administration, curriculum, responsiveness, and access to facilities. The study was conducted at a small business school in Canada; as such; the perceptions of the services could easily vary. The results cannot be generalised to other institutions as well.

Soutar and McNeil (1996) conducted a pilot study to evaluate service quality in a number of units in a large Australian university. The authors modified the SERVQUAL model by adding dimensions such as communication, knowledge and availability to the instrument. The questions were divided into academic and non-academic questions. Both expectations and perceptions of the students were assessed. The questionnaires were distributed to 109 students from three different classes. Data has been analysed using regression analysis and factor analysis. The results revealed that students expressed satisfaction with all the eight dimensions of the academic section but were dissatisfied with the administrative section especially the parking facilities and enrolment procedures. The authors conclude that the generic dimensions of the service quality are suitable for a university context but needs modification to include characteristics that are appropriate to the study.

Athiyaman (1997) examines the relationship between service quality of a university and the diffusion of information about the university. The study was conducted at a medium-sized university in Australia and a total of 1,432 students participated in the study. The survey was carried out in two stages, first in 1993, then in 1995 after the sample group of students had experienced the university's environment. Recognising the drawbacks of SERVQUAL, the author modified the instrument by requesting a convenience sample of students to list the factors that are important to them in assessing the quality of a higher educational institution. The exercise resulted in the development of a 14-item instrument. He adopted mail survey to distribute the questions. Factor analysis was conducted to assess the dimensionality of the scale. The results of the study support the view that perceived quality is a consequence of satisfaction. The results also indicate that the pre-enrolment attitude has little effect on the post-enrolment attitude. The important implication of his finding for educational institutions is that all service encounters have to be managed to improve satisfaction, which in turn will lead to enhanced service quality. The limitation of the study, however, relates to the high correlation between post-enrolment satisfaction and perceived quality measures since both constructs were measured simultaneously. This area could be addressed in other future studies.

Prugsamatz *et al.*, (2006) evaluate the influence of explicit and implicit service promises on Chinese students' expectations of overseas universities. This study adopted the SERVQUAL model to measure service quality by computing the differences of the respondents' desired expectations and their predicted expectations of the organisation's performance using the five dimensions. A sample of 133 Chinese business students from

two universities in Queensland, Australia participated in the study. The results revealed that the three most influential sources of information on the Chinese students' expectations of the universities are past experiences, advertising, and word of mouth. This study cannot be generalised to other cultures, but; as such; provides avenue for future research.

Arambewela and Hall (2009) conducted a study to measure the gap between student responses on expectations and perceptions of the university as a study destination. Adopting the SERVQUAL model, the data in their study were obtained using mail survey conducted on international postgraduate students from Asia studying at five universities in Australia. Four groups of students from China, India, Indonesia and Thailand participated in the study. Their usable responses amounted to 573 which constitutes 24% response rate. Their findings showed that the importance of service quality factors linked to both educational and non-educational services varies among nationality groups and as such; impact differently on student satisfaction. The educational and non-educational issues were represented by seven constructs such as education, social, technology, economic, accommodation, safety, prestige and image.

With regards to the key variables influencing satisfaction, students from India seem to have high expectations for almost all the variables; while students from China had the lowest expectations. Students from India, however, indicated the lowest perceptions of the experiences as compared to other students. Despite the variations in the level of satisfaction with the services provided by the university, students from China and

Indonesia seem to be more satisfied with the services as compared to the students from India and Thailand. This study evaluates both expectations and perceptions and the data was collected simultaneously; as such; this could affect the results of the study. Another avenue for future research is the implication of this study which indicates that the international student market has diversity of cultures, language and values and these requires some segmented approach in addressing the issues that are linked to student satisfaction.

Mai (2005) conducts a comparative study between the UK and US students with regards to student satisfaction in higher education and its influencing factors. The survey was actually conducted to compare postgraduate business school students' perceptions of the education they receive in the UK and US. A questionnaire based on SERVQUAL framework was designed and a total of 20 variables, of which 19 consist of independent variables, were used to assess the service quality. The sample of the study consists of 332 students comprising 184 students from 11 universities in the UK and 148 students from 12 universities in US. The institutions were randomly selected.

The results show that significant differences exist between the UK and US education perceived by the students. Students in the US seem to express higher levels of satisfaction compared to students in the UK. The findings of the study also revealed that the overall impression of the school and the overall impression of the quality education are two important predictors for the overall satisfaction of the education. Lecturers' expertise and interest in their subject, the quality and accessibility of IT facilities are significantly



correlated with the overall impression of education quality. The quality delivered by the teaching staff is still considered as an important element in assessing the quality perception and satisfaction levels of the students. This thesis will also investigate the drivers in measuring business student satisfaction in the Malaysian private educational environment. The sample of Mai's (2005) study consists of 55% foreign students; as such; it is difficult to evaluate the extent of the results being influenced by the cultural factor. This again provides avenue for further research.

With regards to the instruments to measure service quality and satisfaction in the higher education setting, Brochado (2009) compares the alternative instruments. Apart from SERVQUAL and SERVPERF, HedPERF (Higher Education Performance) model has been included as well. A structured questionnaire consisting of perception items enhanced from the SERVPERF and HedPERF scales and expectation items from the SERVQUAL scale was modified to fit into the educational sector. The questionnaire was subject to a pilot testing through expert evaluation and focus group. The sample of this study consists of 360 students at a university in Portugal and the students belong to a technology school. The scales were compared on the basis of reliability, validity and explained variance and unidimensionality. The results show that SERVPERF and HedPERF seem to provide the best measurement capability, but could not identify which one is the best. This study only compares the instruments at one university and one faculty; as such; the results cannot be generalised.

Apart from those models discussed, there are other models of service quality and student satisfaction that have been used in many studies. An evaluation of these will be made in the following section.

#### ***2.5.6 Other Models of Service Quality and Student Satisfaction***

A number of models in the literature attempt to link student satisfaction with its antecedents as well as examine the impact of satisfaction on other variables. The models vary in terms of the numbers of dimensions considered and the methodologies used to examine the strengths and significance of the relationships. The different approaches adopted also resulted in the findings of different underlying dimensions of the nature of student satisfaction. This is also one of the objectives of this thesis. Some models have been developed in response to the criticisms of the SERVQUAL and SERVPERF models discussed earlier. Several other models of service quality and student satisfaction that will be discussed are presented in Table 2.5.

Elliot and Shin (2002) measure student overall satisfaction using a multiple-item weighted gap score analysis. A survey instrument called Student Satisfaction Inventory (SSI), which is distributed by USA Group Noel-Levitz, was used in their study. The questionnaire consists of 116 items covering a full range of college experiences and the demographic characteristics of the respondents. A seven-point Likert scale was adopted and the instrument evaluates levels of perceived importance and satisfaction along 11 dimensions, such as academic advising effectiveness, campus climate, campus life, campus support services, concern for individual, instructional effectiveness, recruitment

and financial aid effectiveness, registration effectiveness, campus safety and security, service excellence, and student centeredness.

Table 2.5 Other Models of Service Quality and Student Satisfaction

Author/ Year/Title	Journal	Methodology
Elliot and Shin (2002) “Student Satisfaction: an alternative approach to assessing this important concept”	Journal of Education Policy and Management	Questionnaire distribution Utilised top 20 educational attributes (SSI)
Guolla (1999) “Assessing the teaching quality to student satisfaction relationship: Applied customer satisfaction research in the classroom”, Journal of Marketing Theory and Practice	Journal of Marketing Theory and Practice	Questionnaire distribution Utilised SEEQ instrument with 7 attributes
Smith (2004) “Off-campus support in distance learning-how do our students define quality?”, Quality Assurance in Education	Quality Assurance in Education	Questionnaire distribution Structured and unstructured elements of student perceptions –components of an off-campus support system and the factors determining the quality of off-campus support system
Tam (2002) “Measuring the effect of higher education on university students”	Quality Assurance in Education	Questionnaire distribution LSEQ instrument-12 activity scales with 130 items
Navarro <i>et al.</i> , (2005a) “ Measuring customer satisfaction in summer courses”	Quality Assurance in Education	Questionnaire distribution Three important elements were used
Petruszellis <i>et al.</i> , (2006) “Student satisfaction and quality of service in Italian universities”	Managing Service Quality	Questionnaire distribution 19 service attributes of the university were used
Alves and Raposo (2007) “ Conceptual model of student satisfaction in Higher Education”	Total Quality Management and Business Excellence	Questionnaire distribution Three elements were utilised
Gruber <i>et al.</i> , (2010) “Examining student satisfaction with higher education service -Using a new measurement tool”	International Journal of Public Sector Management	Questionnaire distribution 15 dimensions were utilised
Douglas <i>et al.</i> , (2006) “Measuring student satisfaction at a UK university”	Quality Assurance in Education	Questionnaire distribution, followed by focus groups Three elements of a “service-product bundle” were used
Vaughan and Woodruffe-Burton (2011) “The disabled student experience: does the SERVQUAL scale measure up?”	Quality Assurance in Education	Questionnaire distribution 10 dimensions were utilised

The questionnaires were distributed to 1,805 freshman, sophomore, junior, and senior students at an upper Midwestern university. Convenience sampling was adopted. A three-step data analysis procedure was adopted in their study; first, each student's overall satisfaction with the top 20 important attributes was computed using composite weighted gap scores; next, overall satisfaction scores were compared for 20 students randomly selected from the sample using single-item satisfaction versus multiple-attribute weighted gap scores); and finally, stepwise regression analysis was adopted to predict the dependent variable of the overall satisfaction scores obtained based on the proposed multi-attribute method. The findings show that the important factors that were given high ratings by the students do not contribute the drivers of the overall satisfaction. High ratings were given to factors such as registration process, placement rate, and reasonable graduation time. Three significant factors which were given low ratings consist of ability to get desired classes, availability of advisor, and access to information. The results, however, seem to suggest that the approach may have some diagnostic value to researchers. This study also indicates that measuring student satisfaction accurately is not an easy task. This exploratory study shows that issues such as response rate bias, data collection mode bias, the manner the questions asked, and the measurement timing have to be looked into as they can influence the results of the study.

A study by Guolla (1999) in Canada adopts the SEEQ (Students' Evaluation of Educational Quality) instrument to measure students' course satisfaction and instructor satisfaction. Seven dimensions were used include learning, enthusiasm, organisation, interaction, rapport, assignments, and materials. Two samples were used, 70

undergraduate and 94 MBA students. The findings from both samples showed that significant differences exist between most of the dimensions and the course and the instructor satisfaction. Enthusiasm was the most important dimension when measuring instructor satisfaction, and the learning dimension the most important when assessing the course satisfaction.

Results of the undergraduate sample indicate that two dimensions, that is, organisation and interaction, did not have positive effects on either the course or instructor satisfaction. Results of the MBA sample on the other hand reveal that the rapport dimension seems to have a significant negative relationship with the course and instructor satisfaction. This study indicates that evaluating the teaching quality-student satisfaction relationship is a useful method of getting the diagnostic information towards enhancing the learning process. This study, however, does not make the effort to identify whether a non-response error affected the data under study. It seems that even though all the students who were present responded to the survey, each class reported an absenteeism rate of 15%.

Another relevant study is by Smith (2004), who explores students' perceptions of the quality level of off-campus support with regards to distance learning in New Zealand. A questionnaire was developed to gather data relating to the types of off-campus support considered important by the students. The questionnaire consists of a mixture of structured and unstructured elements. The first section of the questionnaire examines student perceptions of the important components of an off-campus support system. The

second part of the questionnaire addresses the student perceptions of the factors determining the quality of off-campus support. Approximately 100 postgraduate students were enrolled across three programmes offered at the time of the study. The questionnaires were posted to 90 students and 49 students responded to the survey. The results of the study show that students perceive many components of the off-campus support to be important, as well as the qualities and skills of the lecturers.

The author believes that off-campus support in the distance education context is very complex and multi-dimensional. This research confirms that its nature must be closely linked to the individual student's needs and its quality will be determined by the manner in which it is delivered. The author further states that much depends on the lecturers' capability to combine academic and personal skills in making the support effective. The outcome of this research was used to develop a model of quality off-campus support for distance-learning programmes. This study emphasises the commitment of the lecturers and also the importance of quality. This thesis will also examine the issues as they are stated in the objectives of the study.

A study to investigate the various aspects of student experiences in higher education was conducted at a local university in Hong Kong by Tam (2002). The author utilised the instrument called the "College Student Experiences Questionnaire (CSEQ) developed by Professor C. Robert Pace (1987). The questionnaire consists of 183 items and it was developed around the theory that university experience involves a coherent whole, which requires a conducive campus environment as well as student effort. The CSEQ measures

university experience relating to 12 activity scales, that is: library experience, course learning experience, art, music and theatre, science, students' union, athletics and recreation, campus residence, experience with staff, clubs and organisations, experiences with writing, personal experiences, and student acquaintances. Each scale consists 10 to 12 items.

The original CSEQ was a pilot test on a group of students and the feedback was that the questions are too long as they took 30-45 minutes to complete. The questionnaire was finally reduced to 130 items instead and the name of the instrument changed to LSEQ (Lingnan Student Experience Questionnaire). The revised questionnaires were then distributed to two samples of students, 706 and 998 students respectively. The results of the study showed that students have undergone changes and development through intellectual stimulation as well as socially, emotionally, and culturally. The results also revealed that the quality of students' involvement in the university experience and its activities determines the university outcomes. The experience with the lecturers was found to be significantly related to all aspects of gains, especially with regards to the general educational development. The major implication of this study is for the managers of the higher educational institutions to shape the educational and interpersonal experiences and setting of their campuses that can promote effective learning.

Navarro *et al.*, (2005a) conduct a study to measure student satisfaction in summer courses at a Spanish public university. A questionnaire was developed based on the general satisfaction concept as well as the effects of the dimensions on satisfaction. Three

elements used were teaching staff, enrolment and organisation. Questionnaires were distributed with the completed and usable questionnaires amounting to 375. The results revealed that the three elements showed a positive and statistically significant effect on the students' satisfaction levels. The limitation of this study is that it was conducted during the summer session of 2003, during which only 24 courses were offered pertaining to subjects such as literature, economics, history, music, science, and technology only. This in a way restricts the number of participating students of the university.

Petrzellis *et al.*, (2006) evaluate student satisfaction and service quality at a university in Italy. Being exploratory in nature, the authors intend to study the perception of what a student considers an excellent university. A questionnaire was developed based on the 19 educational services offered at the university. Data was collected over a period of two months and questionnaires were distributed to 1,147 students enrolled in 12 faculties of the university. The outcomes of the study indicate that universities have to focus efforts on improving the quality of teaching and non-teaching aspects so as to respond to the needs of the students as well as to foster stronger relationship with the surrounding economic and productive systems.

Alves and Raposo (2007) examine the factors that influence student satisfaction in higher education in Portugal. The target population consists of all students from Portuguese state universities. The sample consists of 2,687 students from 13 universities. A conceptual model consisting of seven variables which include institutional image, student expectations, perceived value, perceived quality, student satisfaction, word of mouth and



student loyalty was developed and tested using structural equation modelling. The results revealed that the variable which influences student satisfaction the most is image followed by value and quality perceived. The study also discovers the existence of a negative influence from the expectations variable. The main consequence of student satisfaction in the study was student loyalty which is caused by word-of-mouth. This thesis is not looking at the causal relationship that Alves and Raposo's (2007) study examines; as such; structural equation modelling will not be one of the data analysis tools.

Gruber *et al.*, (2010) examine student satisfaction with higher education services using a new measurement tool. The aim of the study is to evaluate how students perceive the services offered and how satisfied they are with the services. The study was conducted at a University of Education in Germany. The new instrument developed consists of 15 quality dimensions covering most of the aspects of student's life. An extensive literature review was done together with discussions with the current students prior to the development of the instrument. The general satisfaction with the university was also measured in the questionnaire. The new satisfaction instrument was tested in two studies, the pilot study in winter term 2005/ 2006 and the main study in 2006/ 2007. A total of 374 students participated in the pilot study and 544 students in the main study with the response rate being 99%.

The results of both studies show that students' satisfaction with the university is based on a stable person-environment relationship. The satisfaction of the students appears to

demonstrate quite well perceived quality differences of the services offered and of the wider environment. Students were also satisfied with the school placements and the atmosphere among other students. Students show dissatisfaction with the quality of the lecture theatres and the university buildings. This study examines only one university; as such; the results cannot be generalised to the whole German student population.

Douglas *et al.*, (2006) utilise the concept of the service-product bundle to measure student satisfaction and the importance of the factors to the students. The study was conducted at a university in UK. Three elements in the bundle used are the physical or facilitating goods; the sensual service provided (the explicit service); and the psychological service (the implicit service). The service-product bundle refers to the inseparable offering of many goods and services. The survey was carried out to determine student satisfaction levels across the university's offerings. The questionnaire consists of 60 questions relating to the "bundle" and another 15 demographic questions. A sample of 865 students from the faculty of business and law participated in the survey. Data was analysed using SPSS and quadrant analysis. The results showed the most important aspects identified by the students are linked to the teaching and learning elements, with the least important being the physical facilities. Even though the study is supposed to address the satisfaction and importance elements, the authors seem to place more emphasis on the importance elements. The study also examines one university, and as such; the results cannot be generalised. Despite the limitations, the service-product bundle used in the study, appears to provide comprehensive understanding of the needs of

the students than most other models evaluated and, hence, is more suitable for the education sector.

Vaughan and Woodruffe-Burton (2011) compare a model called ARCHSECRET against a modified SERVQUAL model with regards to measuring disabled student experience in higher education. The ARCHSECRET model consists of ten service quality dimensions namely access; responsiveness; communication; humaneness; security; enabling/empowerment; competence; reliability; equity; and tangibles. Four hundred students with registered disabilities of the post-92 Scottish university participated in the study, which was conducted over two time periods using postal surveys, with the first period using ARCHSECRET model and the second one using SERVQUAL model. The findings revealed ARCHSECRET model to be more superior to the modified SERVQUAL model with regards to the predictive power, and also more reliable and valid as a tool to measure disabled student experience in a higher educational setting. The results of this study and this thesis share similarity as both found SERVQUAL model to be unsuitable to measure student experience and satisfaction despite the different contexts.

The following section will examine the studies conducted in Malaysia with regards to service quality and student satisfaction.

## **2.6 Studies conducted in Malaysia on Service Quality and Student Satisfaction**

Service quality and student satisfaction issues have received wide attention throughout the world, including in Malaysia. The literature on studies conducted in Malaysia on

service quality and student satisfaction have been reviewed. Table 2.6 presents the studies.

Table 2.6 Studies conducted in Malaysia on Service Quality and Student Satisfaction

Author/ / Year/ Title	Journal	Methodology
Yunus <i>et al.</i> , (2009) “Service quality dimensions, perceive value and customer satisfaction: ABC Relationship model testing”	IBej	In-depth interviews Questionnaire distribution Modified SERVQUAL
Poh and Samah (2006) “Measuring Students’ Satisfaction for Quality Education in E-Learning University”	UNITAR E-Journal	Questionnaire distribution Modified SERVQUAL
Illias <i>et al.</i> , (2008) “Student Satisfaction and Service Quality: Any Differences in Demographic Factors?”	International Business Research	Questionnaire distribution SERVQUAL
Hishamuddin <i>et al.</i> , (2008) “Service Quality and Student Satisfaction: A Case Study at Private Higher Education Institutions”	International Business Research	Questionnaire distribution SERVQUAL
Abdullah (2005) “The development of HedPERF: a new measuring instrument of service quality for higher education”	International Journal of Consumer Studies	Questionnaire distribution HedPERF-adapted from SERVPERF and literature review
Abdullah (2006) “Measuring service quality in higher education: HedPERF versus SERVPERF”	Marketing Intelligence and Planning	Questionnaire distribution HedPERF and SERVPERF
Sapri <i>et al.</i> , (2009) “Factors that influence Student’s level of satisfaction with regards to higher education facilities services”	Malaysian Journal of Real Estate	Questionnaire distribution Model of Value Chain concept derived from review of literature in facilities management
Shekarchizadeh <i>et al.</i> , (2011) “SERVQUAL in Malaysian Universities: perspectives of international universities”	Business Process Management Journal	Questionnaire distribution Modified SERVQUAL
Hassan and Mohamad Sheriff (2006) “Students’ need recognition for higher education at private colleges in Malaysia: an exploratory perspective”	Sunway Academy Journal	Questionnaire distribution Based on literature review

Yunus *et al.*, (2009) conduct a study to evaluate the effect of service quality and perceived value on student satisfaction at a public university in Sarawak, Malaysia. A questionnaire using a modified SERVQUAL framework was developed consisting of 26 items. Using convenience sampling, the questionnaire was distributed to 300 undergraduate students at the university, of which only 150 responses were returned. Using hierarchical regression analysis, the results of the study showed significant differences exist between perceive value and reliability and satisfaction; perceive value and responsiveness and satisfaction; perceive value and empathy and satisfaction. The outcome of the study also confirms that perceive value partially mediates the service quality model of the study. The use of convenience sampling indicates that the study has problems in generalising the results. In addition, the study was conducted at one university only. The author should also address the issue of the non-response which constitutes 50% of the sample.

Poh and Samah (2006) explored whether the undergraduate students are satisfied with the quality education at an e-learning university in Kuala Lumpur, Malaysia. A questionnaire was developed using eight variables: the course content; service given by the lecturers and faculty; course assessment; instruction medium; social activities; social activities; and concern for students and facilities totalling 36 attributes. A total of 250 questionnaires were distributed, of which 146 responses were received (58% response rate). Data was analysed using the mean gap score, stepwise regression and factor analysis. The findings indicate that four factors, that is, facilities, instruction medium,

course content and lecturer and faculty are prominent in influencing student satisfaction. The study, again involves the issue of not able to generalise the results.

Illias *et al.*, (2008) examine whether there are differences of demographic factors on student satisfaction and service quality. SERVQUAL scales were used and 200 bachelor degree students from two private higher education institutions participated in the study. The authors use t-tests and, correlation as well as ANOVA test for satisfaction. Their findings indicate that the demographic factors do not prevail any significant difference with satisfaction and the overall service quality. This shows that the factors were not significant toward satisfaction of the students.

Hishamuddin *et al.*, (2008) examine the relationship between service quality dimensions (SERVQUAL model) and overall service quality with students satisfaction. The study was also conducted using 200 students at two private educational institutions in Malaysia. The result shows that the five service quality dimensions and the overall service quality have a strong relationship with students satisfaction. From the regression analysis performed, two dimensions in the service quality that is, empathy and assurance are the critical factors toward students' satisfaction

Abdullah (2005) develops a HedPERF model consisting of 41 items, 13 items adapted from SERVPERF and another 28 items generated from literature review and from various qualitative research inputs. Four factors namely: non-academic aspects; academic aspects; reliability and empathy are used. The instrument has been tested for unidimensionality, reliability, and validity using exploratory and confirmatory factor

analysis. In 2006, Abdullah modified his HedPERF scale from a 41-item scale to 38 items instead because according to him, the modified structure of his scale may be more superior in measuring service quality in the higher education environment. The limitation of this study is that the items in the questionnaire consist of positively worded statements only. As stated by Churchill (1979), a good research practice is to use both positively and negatively worded statements. In addition, even though the model appears to be superior to SERVPERF, the instrument is still considered a generic instrument as it does not differentiate between the various types of higher educational institutions in its application (Bahroom *et al.*, 2009).

Sapri *et al.*, (2009) evaluate the factors that influence student's level of satisfaction with regards to higher educational facilities. A questionnaire based on the literature review in facilities management and higher educational institution was developed consisting of three sections, with six main variables of teaching staff, teaching method, administration, physical facilities, enrolment, and actual service. A random sample method was adopted with 600 questionnaires distributed, of which 460 were returned (77% response rate). The results show that students are more concerned with the teaching and learning elements as compared to the physical facilities. This thesis will also evaluate the satisfaction levels and the perception of the students of the drivers. One limitation of this study is that the questionnaires were distributed to the students at the beginning of the class sessions and collected at the end of the sessions. As practiced by many researchers, the questionnaires should either be distributed before or after the class sessions so as not to affect the students' focus in the lectures and hence can influence them in answering the questions.

Shekarchizadeh *et al.*, (2011) examine the service quality perceptions and expectations of international postgraduate students at five Malaysian public universities. Using a modified SERVQUAL framework, a questionnaire comprising 35 items was developed and the content validity of the instrument conducted by four professors from one of the public universities in Malaysia. The recommendations made by the panel were incorporated into the revised questionnaire which was later pilot tested on 30 students. This was carried out to test the instrument for face validity. Questionnaires were then distributed to 552 international postgraduate students using stratified random sampling.

The findings of the study revealed a five-factor solution consisting of professionalism, reliability, hospitality, tangibles, and commitment. The five factors accounted for 62% variance in the data generated. All items of perception were perceived as significantly negative as a result of the gap analysis conducted. The study indicates that the international postgraduates have negative perceptions of the education service quality of the universities. This is one of the implications for the managers of educational institutions to consider in providing the educational services to the students. It is important to identify the causes for the students to develop the negative perceptions of the universities. This study addresses the reliability and validity issues of the instrument before distributing to the students. This thesis also examines international students' perceptions and satisfaction levels but the context is the private higher education.

Another study conducted in Malaysia is by Hassan and Mohamad Sheriff (2006) on students' need for recognition of higher education at private colleges in Malaysia. The



purpose of the study is to identify the influence of internal and external environmental and marketing stimuli on the students' need for recognition to study at the private colleges. A questionnaire was developed based on the review of the literature. The questionnaires were then distributed to 888 students enrolled in 72 multi-disciplined private colleges in Malaysia. The results show that the external marketing stimuli having the highest influence on the students' need is the lecturer's quality, programme quality, followed by the quality of physical resources. As for the external environmental stimuli, family tends to influence the decision firstly and that is followed by the internal stimuli such as student past experiences, characteristics and motive. Even though this is only an exploratory study, the authors have utilised a large sample size. The results, however, are not conclusive and future research could be undertaken to address the magnitude of the influence of the factors on students' need recognition.

At this juncture, it can be observed from the evaluation of the service quality and satisfaction models that each has strengths and shortcomings. The evaluation has also pointed out that despite being extensively criticised; SERVQUAL model has been a popular and widely used model to measure service quality and satisfaction. Its application is also extended to many countries including Malaysia as many studies on satisfaction and service quality conducted in Malaysia adopted SERVQUAL model to measure service quality and student satisfaction (Hishamuddin *et al.*, 2008; Illias *et al.*, 2008; Shekarchizadeh *et al.*, 2011; and Yunus *et al.*, 2009).

The literature, the empirical studies conducted and the criticisms on the model used indicate that it is not easy to measure service quality and specifically students' satisfaction in the higher education setting (Arambewela and Hall, 2009; Buttle, 1996; Carman, 1990; Cuthbert, 1996 a, b; Oldfield and Baron, 2000; LeBlanc and Nguyen, 1997; and Sureshchandar, 2002). The outcomes seem to be different depending on the contexts too, such as distance learning environment and disabled student experience (Smith, 2004; Vaughan and Woodruffe-Burton, 2011). In response to this situation and a critical evaluation of the literature, the author is of the opinion that model of student satisfaction by Douglas *et al.*, (2006) is more appropriate to be used in the Malaysian private educational environment. This model is called the service-product bundle and is discussed in the following section.

## **2.7 The Service-Product Bundle Model a review of the scale by Douglas *et al.*, (2006)**

The service-product bundle, which refers to the inseparable offering of many goods and services, consists of three elements of physical or facilitating goods; the sensual service provided (explicit) service and the psychological service (implicit) service. The bundle provides a more comprehensive understanding of the needs of the students than most other models and is therefore more suitable for the education sector. The strengths of the model are as follows:

- unlike the SERVQUAL and SERVPERF models, it provides a more comprehensive range of drivers of student satisfaction;

- it has not been criticised in a higher education context;
- it was specifically designed for the higher educational sector, and;
- it may provide a reliable and valid measurement instrument.

According to Lovelock *et al.*, (2007), education is considered one of the services targeted at people's minds. As such; anything that touches people's minds has the power to shape attitudes and influence behaviour. The educational experience involves a service encounter that is high-contact in nature as students are required to "co-produce" the services especially during the class sessions. It is during this service encounter that some authors use the term "moment of truth" takes place. This model is comprehensive because it considers the core service and the supplementary services that make up the service concept. Lovelock *et al.*, (2007) further states that in providing services, the core is being supported by the supplementary services which they termed as the "flower of service". The supplementary services can be divided into the facilitating and enhancing and their role is to support the core product. The facilitating services include information, order-taking, billing, and payment. The enhancing services include consultation, hospitality, safekeeping, and exceptions.

In the education sector, the core service is the lecture, but a lecture by itself is not sufficient as it requires other supplementary services to make the educational experience a holistic one. The author believes that the service-product bundle model considers those aspects in reaching the customers or students successfully. The bundle with its elements

of physical facilities and facilitating goods, explicit and implicit services could lead to a satisfying outcome.

The “bundle” can be traced back to the contribution of Sasser *et al.*, in 1978. Service operations were considered slow during the earlier days and the major breakthrough came in 1976 and onwards. Sasser *et al.*'s., (1978) pioneering book, *Management of Service Operations*, contributed to the study of customer-based operations. According to the authors, service concept means the total bundle of goods and services sold to the customer, which also includes the importance of each component to the customer. The original total service package consisted of three elements of facilitating goods, the explicit services and the implicit services. The service concept elements have been refined by many authors (for example, Douglas *et al.*, 2006; Fitzsimmons and Fitzsimmons, 2004; and Goldstein *et al.*, 2002) throughout the years to suit their research accordingly.

Douglas *et al.*'s., (2006) service-product bundle consists of the inseparable offerings of many goods and services which includes what the educational institution under their study, that is, Liverpool John Moores University, offers to its students and the following elements have been used in their study:

➤ **The physical or facilitating goods**

Facilitating goods - lectures and tutorials; presentation slides; supplementary handout documents/ materials and the recommended module text

Physical facilities- lecture theatres and tutorial rooms and their level of furnishings; decoration; lighting and layout as well as ancillary services such as catering and recreational amenities.

- **The explicit service** - knowledge levels of staff; staff teaching ability; the consistency of teaching quality irrespective of personnel; ease of making appointments with staff; and the level of difficulty of the subject content and the workload.
- **The implicit service** - friendliness of teaching staff; approachability of teaching staff; concern shown when students have problem; respect for feelings and opinions; availability of staff; capability and competence of staff; ability of university's environment to make the student feel comfortable; the sense of competence, confidence and professionalism conveyed by the ambience in lectures and tutorials; feeling that the student's best interest is being served; and the feelings that rewards are consistent with the effort put into course works/ examinations.

Douglas *et al.*, (2006) developed a questionnaire consisting of two sections, Section One consists of fifteen questions titled "About you" to be filled out by the respondents. Section Two consists of 62 questions of the above three elements titled "About the University facilities" and this section has seven subsections. The 60 questions in section Two requires the students to indicate their level of satisfaction and their assessment of the

importance of each factor using a 5-point Likert scale and the other two questions are on the overall satisfaction.

Douglas *et al.*, (2006) in their study of student satisfaction at a UK university utilise the concept of the service-product bundle to design the survey questionnaire to determine which aspects of the university's services were most important and the extent they satisfy students. Their results showed that students place more importance on the teaching and learning elements and consider the physical facilities least important.

Their study provides a good starting point for this thesis. Apart from measuring the level of business student satisfaction and their assessment of the importance of each driver, this thesis will identify the underlying dimensions of the drivers; evaluate the influence of the demographic factors have on the results; identify the areas of service priority towards better allocation of resources; and also to discuss the practical implications of the study.

### ***2.7.1 Drivers of Students' Satisfaction and Perceptions***

Students' satisfaction and perceptions of the quality of education is the best indicator for organisations' future profits as well as for future recommendation of the universities (Chan *et al.*, 2003; Fornell, 1992; and Reichheld and Sasser, 1990). The service-product-bundle consists of the drivers that are linked to the physical facilities or the facilitating goods and the teaching and learning drivers under the explicit and the implicit services.

### ***2.7.1.1 Physical Facilities and Facilitating Goods as Drivers***

Physical facilities are the tangible offerings that potential students tend to take note of when they decide to enter into a university. Once enrolled, students spend most of their time at the campus and this shows the influence of the facilities on their educational experiences.

Price *et al.*, (2003), in their study on the impact of facilities on student choice of university, indicate that students' perceptions of a university's facilities are one of the main influences on their enrolment decision. Questions relating to learning and teaching facilities, library facilities and the availability of computer facilities all receive high importance ratings. Poh and Samah (2006) discover that a quality university, as perceived by the students, should provide excellent library, sport, recreational, computing, classroom and academic facilities. Sapri *et al.*, (2009) evaluate the factors that influence student's level of satisfaction with regards to higher educational facilities services and their findings indicate that the second major satisfaction factor relates to the facilities management functions such as library, laboratory, and overall campus environment.

A study by Alridge and Rowley (1998) identifies the need for continuous improvement of education quality and the evaluation of total student experience in educational institutions. Their findings indicate that students' educational experiences are strongly influenced by physical facilities such as libraries, IT facilities and lecture theatres. The results of Mai's (2005) study also confirms the importance of IT facilities to the students.

This shows that IT facilities have become a necessity in higher education. Townley (2001) and Harvey (2001), in their studies on accommodation facilities, state that it is an important factor towards student satisfaction. Hill *et al.*, (1998) indicate that students' self-perception of their educational experiences contribute significant measurements for the evaluation of university outcomes. Studies by Banwet and Datta (2003) and Hill *et al.*, (2003) conclude that the most important aspect of the university offerings were associated with the core services such as the lecture, class notes and materials and the classroom delivery.

#### ***2.7.1.2 Teaching and Learning (Explicit and Implicit services) as Drivers***

The teaching and learning aspects of education are important determinants towards student satisfaction and the perceptions of quality education (Brown *et al.*, 1998; Elliot and Shin, 2002).

The results of a study by Sapri *et al.*, (2009) also reflect that students were most concerned about teaching staff and ranked this as important. Studies done by (Douglas *et al.*, 2006; and Price *et al.*, (2003) also produce the same outcome. Tam's (2002) findings shows that interaction with teachers and peers was positively confirmed related to the students' self-report of progress. The study results of Voss and Gruber (2006) indicate that students want lecturers to be knowledgeable, enthusiastic, approachable, and friendly. Students also want to encounter valuable teaching experiences, to be able to pass tests and to prepare for their profession (Voss and Gruber, 2006). Geall's (2000) finding indicates that feedback to students is important, as interaction with the lecturers is



considered to be a vital aspect of the learning experience. The author further states that students expect easy access to lecturers to discuss both educational and personal matters. Managing student perceptions of service performance, therefore, is critical in order to enhance their attitudes towards the institutions (Bagozzi, 1992).

### **2.7.2 Demographic Profiles**

The demographic profiles utilised in this study are gender, year of study, programme of study, semester grade and the nationality of the students. Many studies have been undertaken on gender and satisfaction and service quality. Soutar and Mc Neil (1996) find that there is a significant relationship between gender and satisfaction with service quality as it seems that males are more satisfied than females. The study conducted by Joseph and Joseph (1998), however, indicates that there is no significant difference between males and females.

Ham and Hayduk (2003) agree to that as they further discover that gender has no significant relationship with perceived service quality even though males seem to be more satisfied than females. Researchers such as Carey *et al.*, (2002) and Corts *et al.*, (2000) also discover that there is no significant difference between gender and satisfaction. Renzi *et al.*, (1993) and Umbach and Porter (2002) on the other hand, find that women have lower satisfaction compared to men. Perry *et al.*, (2003) agree to the finding.

Hill (1995) and Corts *et al.*, (2000) link student satisfaction to the year of study of the students in their studies. With regards to the year of study, Corts *et al.*, (2000) conclude that there is no significant difference between a junior and senior students and this implies that their experiences do not change their perceptions with regards to satisfaction. The results of a study by Oldfield and Baron (2000) to evaluate students' perception of service over time revealed that the mean score for the final year students was lower than those of the first year students. This suggests that as students become more experienced in the higher educational settings, they tend to be more critical in their perceptions of the service quality. Hill (1995) finds that there is stability on the students' expectations over time, which suggests that they were probably formed prior to arrival at the university compared to students' perceived quality as there is a reduction in quality experience indicating that it is less stable. O'Neil (2003) uses the SERVQUAL instrument in his longitudinal study and finds that the students rate their perceptions of the factors differently at the time of consumptions compared to their subsequent ratings.

Oldfield and Baron (2000) conducted a study on business students' perceptions of service quality in a UK business and management faculty and found that, in order to enhance students' perceptions, the limited resources have to be allocated accordingly across the course cohorts. Many studies have been conducted on the experiences of business students as this programme seems to be a popular choice at educational institutions. As for the academic performance and satisfaction, Oldfield and Baron (2000) as well as Pike (1991) evaluate and relate student satisfaction to the academic performance of the students. Aitken (1982) states academic performance as one of the factors that can

determine satisfaction. Pike (1991) examines the relationship between grades and satisfaction in his study in which the results show that satisfaction exerts greater influence on grades than grades exert on satisfaction.

Arambewela and Hall (2009) and Ismail (2008) assess the expectations and perceptions of international students towards their student experiences. Arambewela and Hall's (2009) findings indicate that the importance of the quality factors related to both educational and non-educational services varies among nationality groups and therefore, has a differential impact on students' satisfaction and perceptions. Ismail (2008) in her study discovers that the international students' choice satisfaction resulted from satisfaction with the information acquired with regards to the college attributes.

In summary, studies on the influence of demographic profiles on the results produce both positive and negative relationships. The variables under study contribute significantly to the relationships. This thesis is going to examine the influence of demographic profiles of gender, year of study, programme of study, semester grade and nationality on the students' satisfaction levels.

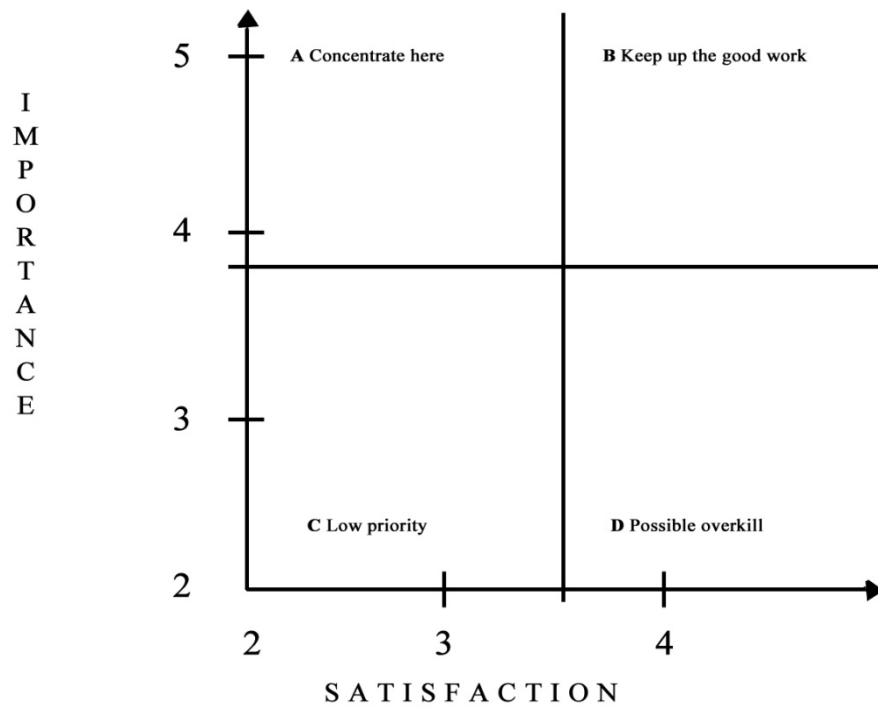
### ***2.7.3 Quadrant Analysis***

The analysis, better known as Importance-Performance (IP) analysis, was first utilised to analyse the elements of a marketing programme by Martilla and James (1977). According to the authors, this analysis provides a useful tool to the managers in developing marketing strategies for their respective organisations. They state that the attractive and

interesting feature of this analysis is that the results may be graphically displayed on a two-dimensional grid after examining the mean importance and performance ratings of the service attributes.

They also provide a suggestion to those applying this analysis to determine the attributes to be measured. Separate the importance and performance measures and position the horizontal and vertical axes on the grid (this is actually a matter of judgment). Median values could be used as well. The importance-performance grid should be analysed accordingly. Presentation of the results on the grid will help the managers to interpret the data and to identify areas that need attention as there are four quadrants labelled as Quadrant A (Concentrate here); Quadrant B (Keep up the good work); Quadrant C (Low priority); and Quadrant D (Possible overkill). Please refer to Figure 2.1 for a generic version of quadrant analysis

Figure 2.1 Generic version of quadrant analysis



Due to its usefulness in identifying areas for better allocation of services, quadrant analysis has been used in many sectors. Table 2.7 summarises some of the studies that have utilised quadrant analysis, followed by a discussion on the studies and their findings.

Table 2.7 Studies adopting quadrant analysis

Author/ Year/Title	Journal	Sector
Martilla and James (1977) “Importance-Performance Analysis”	Journal of Marketing	Automobile industry
Joseph and Joseph (1997) “Service quality in education: a student perspective”	Quality Assurance in Education	Education industry
Ford <i>et al.</i> , (1999) “Importance-performance analysis as a strategic tool for service marketers: the case of service quality perceptions in New Zealand and USA”	The Journal of Services Marketing	Education industry
O’Neil and Palmer (2004) “Importance-performance analysis: a useful tool for directing continuous quality improvement in higher education”	Quality Assurance in Education	Education industry
Douglas <i>et al</i> (2006) “Measuring student satisfaction at a UK university”	Quality Assurance in Education	Education industry
Angell <i>et al</i> (2008) “Service quality in postgraduate education”	Quality Assurance in education	Education industry
Mostafa (2006) “A Comparison of SERVQUAL and I-P Analysis: Measuring and improving service quality in Egyptian private universities”	Journal of Marketing for Higher Education	Education industry
Hawes and Rao (1985) “Using Importance-Performance analysis to develop healthcare marketing strategies”	Journal of Health Care Marketing	Health care industry

Martilla and James (1977) performed IP analysis for an automobile dealer’s service department. Their results revealed that from the 14 attributes assessed, three attributes were found in quadrant A comprising job done right the first time; fast action on companies; and perform only necessary work, seven in quadrant B consisting of prompt warranty work; able to do any job needed; service available when needed; courteous and friendly service; car ready when promised; perform only necessary work; and clean up

after service work. Three attributes were found in quadrant C consisting of convenient to home; convenient to work; and courtesy buses and rental cars and only one attribute found in quadrant D, that is, send out maintenance notices. The results showed that 50 per cent of the attributes were found in the keep up the good work quadrant. Dillon *et al.*, (1993) consider this so-called “quadrant analysis” as a graphic technique used to analyse the importance and attribute ratings and the grid produces an illustration of the attributes that are important among those delivered by the providers.

Many researchers adopt this analysis in their studies and (among them include Angell *et al.*, 2008; Douglas *et al.*, 2006; Ford *et al.*, 1999; Joseph and Joseph, 1997; and O’Neil and Palmer, 2004). Joseph and Joseph (1997) use the analysis on a sample of final year business students at a New Zealand University. The authors identify seven factors as the determinants of service quality in education: academic reputation; career opportunities; programme issues; cost/ time; physical aspects; location; and others. The result shows that all the six factors fall in quadrant B and only one factor (other) in quadrant A. The authors further state that even though the majority of the factors fall into the B quadrant, the performance is not what it could be because the favourable position in the grid should be the right hand side of the quadrant.

Ford *et al.*, (1999) assess and compare the perceptions of undergraduate business students in major urban universities in New Zealand and the USA. Using the six similar factors as Joseph and Joseph (1997), their IP analysis of the New Zealand sample produces four factors in quadrant B (career opportunities, physical aspects, programme

issues, and academic reputation), two factors in quadrant C (cost/ time, other); and another one factor in quadrant D (location). The US student sample on the other hand, produces one factor in the quadrant A (cost/time), two in quadrant B (programme issues, academic reputation), two in quadrant C (choice influences, other) and one in quadrant D (physical aspects).

O'Neil and Palmer (2004) focus on students at a large state university at Western Australia in their IP analysis. They use only three factors of process, empathy, and tangibles in their analysis. Their results showed that process falls in quadrant A, empathy in quadrant C and tangibles in quadrant D. Douglas *et al.*, (2006) conduct the quadrant analysis on students at a UK university. They use the grid to link the perceived degree of the student satisfaction with an attitude with its perceived importance, which resulted in a satisfaction and importance grid. Sixty items have been assessed and the grid produces nine items in both quadrants A and D and 21 items in both quadrants B and C. Their quadrant analysis confirms their findings on the lack of importance of the physical facilities as perceived by the students.

Angell *et al.*, (2008) conducted a study on the service quality in postgraduate education at a university also in the UK. They use four factors in their IP analysis known as academic, leisure, industry links, and finally cost/ value for money. Their results showed that the industry links factor falls under quadrant A; academic in quadrant B; and both leisure and cost/ value in quadrant D. Importance-Performance (IP) analysis was also used by Mostafa (2006) to identify the factors that can be linked to service quality in higher



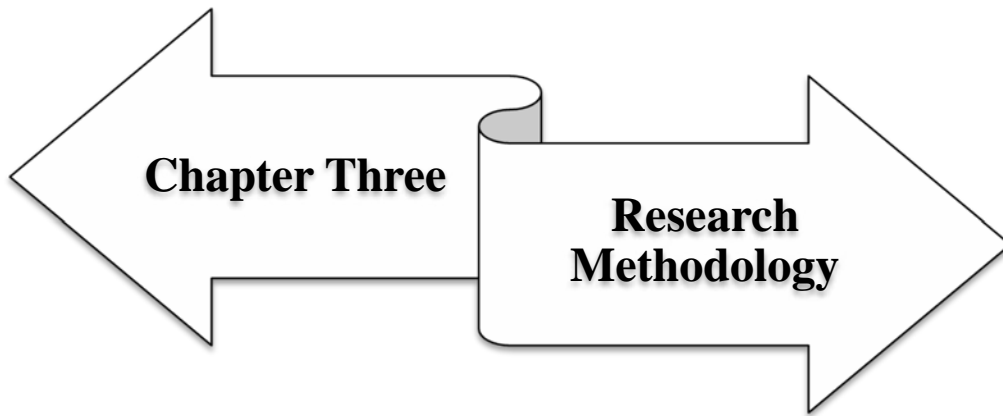
education in the Arab context. His findings indicate that the more that is discovered on how the students perceive service quality in higher education, the faster the quality can be enhanced, as such; enabling the universities to expand further globally. Apart from the education industry, other industries such as automotive, food, housing, and healthcare have utilised this analysis as well (Hawes and Rao, 1985). From the above results, it can be observed that the analyses can provide educational institutions with some useful and strategic alternatives towards their allocation of resources.

This study is also performing quadrant analysis on the questions to the respondents of the satisfaction and importance attributes at four private educational institutions in the Malaysian private educational environment. The results to be obtained can be used by the business schools and the educational institutions to develop better strategies, be more competitive as well as able to sustain their quality education.

## **2.8 Chapter Summary**

This chapter reviewed the literature that can be linked to the drivers of student satisfaction and their perceptions. This chapter commenced by putting across the various views of researchers on the role of students in the educational institutions. Most of the views considered students as the direct recipients of the educational services and as such; are considered the customers of the educational institutions. Moreover, universities are being established to serve the students. The service markets are becoming very competitive, therefore, understanding student satisfaction in a way indicate that the students' feedback is critical to the educational institutions.

This study presented many definitions of student satisfaction, explained the need to discuss service quality, service quality in higher education as well as linking service quality to satisfaction. Evaluation of the service quality models, particularly SERVQUAL and SERVPERF models as well as other models, were then made before deriving at the research gap. This study also explained the model used, justifying the use of the model as well as recognising its limitations. The demographic factors under study followed by the quadrant analysis were presented. The subsequent chapter will discuss the research methodology of this study.



### **3.0 Introduction**

The research methodology will shape the choice and use of methods used in this thesis and will link them to the desired outcomes. The epistemology which is inherent in the theoretical perspectives lies behind the adopted methodology. According to Esterby-Smith *et al.*, (2002) epistemology and theoretical perspective are philosophical positioning whereby understanding them is considered vital for research activities. This indicates that considerable efforts are required to think about the philosophical issues in undertaking this research.

In relation to the above, this chapter will discuss the research philosophy adopted in this study. The epistemology, theoretical perspectives, methodology, and methods of this study will be discussed as the soundness of any research is dependent on these four elements (Crotty, 1998). The author is going to explain and justify the adoption of a positivist approach in this study. However, before detailing the research philosophy of the study, the author is going to present the conceptual framework of the study. As argued by Berger and Patchner (1988), reviewing the literature leads to the identification of the conceptual framework of a study.

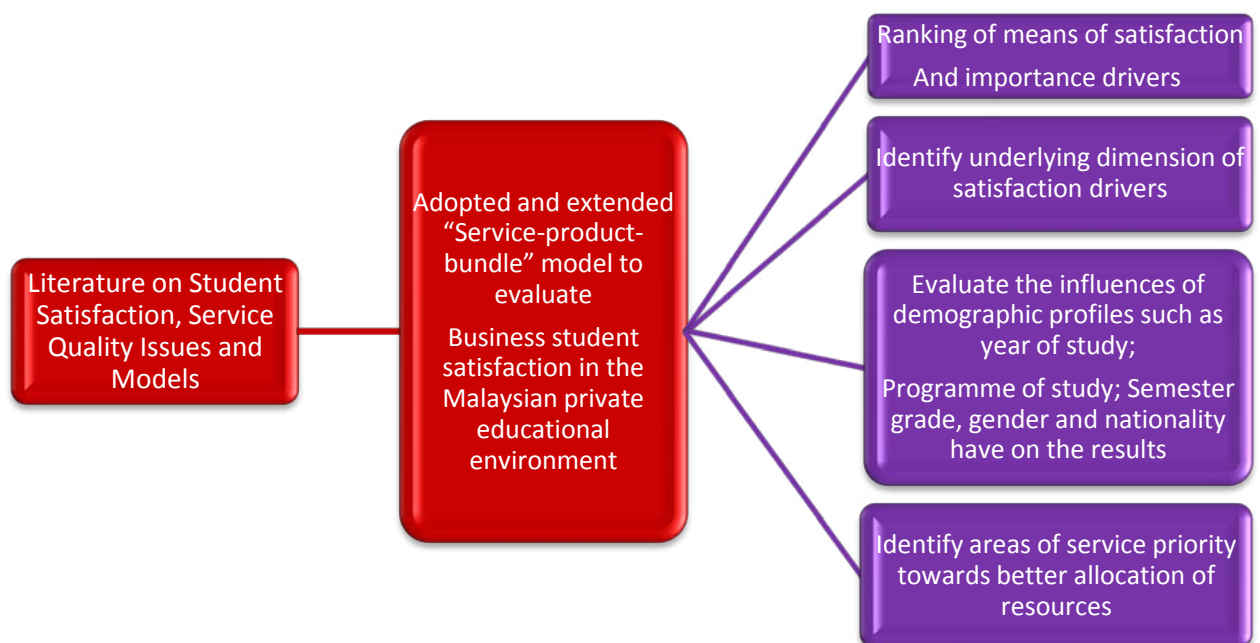
The discussion will continue with the research design of this study. Research design refers to the master plan which specifies the methods and procedures (Zikmund, 1991). Hussey and Hussey (1997) indicate that it refers to the detailed plan which will be used to guide and focus the research. Towards this, the author will explain the questionnaire structure and content, pre-testing and development, sampling method, reliability analysis,

validity analysis and the data analytical strategy in order to answer the research question. The author will also touch on the ethical issues of the study before ending the chapter.

### 3.1 Conceptual Framework

According to Leshem and Trafford (2007), conceptual frameworks act as theoretical anchors of the research and they help to model relationships prior to the research. Commencement of the research will then provide the conceptual focus towards the conclusion. Leshem and Trafford (2007) further state that the conceptual framework should be able to reflect the researcher's thinking process with regards to the conceptual background and the research context. The conceptual framework of the study is illustrated in Figure 3.1.

Figure 3.1 Conceptual Framework



The conceptual framework in Figure 3.1 shows the progression of this study. This study begins by reviewing the extant literature on student satisfaction, service quality issues and the service quality models. The outcome of this review is the adoption and extension of the service-product bundle model to measure business student satisfaction in the Malaysian private educational environment. The study utilises the model to measure students' satisfaction and perceptions of the importance of each driver; identify the underlying dimensions of the satisfaction drivers; examine the influence that demographic profiles such as gender, nationality, year of study, programme of study, and the semester grade have on the results; identify the areas of service priority towards better allocation of resources before discussing the practical implications and contributions of the study.

### **3.2 Research Philosophy**

Research philosophies refer to theories that relate to the ways of perceiving the world and undertaking research in order to understand them better (Trochim, 2000). Crotty (1998) put across the point that the choice of a research philosophy is dependent on the nature and the type of study one is undertaking and the best technique to be adopted should be able to support the theories and situations facing that individual study. As this study is about student satisfaction, the author of this thesis has identified and discussed the theories of student satisfaction which provide the theoretical foundation of this study in the introduction chapter. The following section will proceed with an explanation on the philosophical stance of this study and Figure 3.2 illustrates this study's epistemology, theoretical perspective, methodology, and methods.

Figure 3.2 Research Philosophy



### 3.2.1 *The Epistemology: Objectivism*

Hamlyn (1995) states that epistemology deals with the nature of knowledge, its possibility as well as scope and general basis. According to Trochim (2000), epistemology, in its simple term, refers to the philosophy of knowledge. He further states that epistemology is also linked to ontology and methodology. Ontology deals with the philosophy of reality, epistemology looks at the issues of how reality is discovered, and methodology determines the particular practices used to acquire knowledge about it. Crotty (1998) is of the opinion that epistemology explains the how and what that is known. Krauss (2005) discovers that philosophical assumptions are crucial to understanding the general perspective from which the study is designed and took off. The epistemology of this study is based on the theory of objectivism.

The main aim of this study is to identify and evaluate the drivers of business student satisfaction in the Malaysian private educational environment. The author is seeking the truth with regards to the drivers of student satisfaction and believes that by being

systematic and careful, one can discover the objective truth. According to Crotty (1998), it is an epistemology that holds to a reality and those who adopt this epistemology believe that meaningful reality takes place apart from the operation of any consciousness. Crotty (1998) further elaborates that as truth and meaning is found in objects, we can discover objective truth and meaning through careful and systematic research.

Other epistemologies that have been adopted by other studies include social constructionism and subjectivism. Social constructionism believes that there is no objective truth to be discovered. In addition, meaning is constructed and not discovered (Crotty, 1998). Subjectivism assumes that meaning is created out of something and is imposed on the subject by the subject. The author of this thesis hopes to discover the truth about the business student satisfaction in the Malaysian private educational environment. In this view of “what it means to know”, understandings and values are objectified in the respondents of this study and by using the right methodology, hopefully the truth can be discovered. These points clearly indicate that adopting subjectivism is not suitable for this study.

### ***3.2.2 The Theoretical Perspectives: Positivism***

Cavana *et al.*, (2001) states that quantitative research is based on the ideals of positivism, which dates back to 200 years through the ideas of Auguste Comte. Crotty (1998) agrees, as he also states that the word “positivism” originated from Auguste Comte and that he is the one who made the positivist idea more popular than other philosophers during that time. Esterby-Smith *et al.*, (2002) contribute by stating that positivism



believes that the social world exists externally as such its properties should be evaluated and measured by using objective methods, rather than inferred subjectively through sensation, intuition or even reflection. They continue to explain that positivism is grounded on several assumptions such as independence, value-freedom, causality, hypothesis and deduction as well as generalisation and cross-sectional analysis.

Positivism has been extensively used in many studies and the author found that it is also suitable for this present study. The author accepts the above views as positivism guides research not by mere assumptions but through an organised and convincing process. This study will also adopt a deductive approach with positivism as the philosophical stance and can be reflected in the strategies, analysis and the results of the study. Towards evaluating business student satisfaction in the Malaysian private educational environment, the author is going to measure the level of the business students' satisfaction and their perceptions of each factor with a proper instrumentation. In addition, the research will be conducted in an objective manner.

Apart from positivism as the theoretical perspective of this study, other perspectives guiding other researchers include interpretivism, as well as interpretivism embedded in symbolic interactionism. Interpretivism contradicts positivism as it focuses on generating empathetic understanding of the people, and researchers will gather data to allow them to understand and eventually to interpret the social world as viewed by the subjects under study (Neuman, 2003). Esterby-Smith *et al.*, (2002) add that the essence of interpretivism is that people determine reality rather than by objective and the external factors.

Symbolic interactionism's perspective includes meaning, language and thought (Mead, 1934). According to Blumer (1969), in research terms, this approach requires the researchers to interpret the process of interpretation through which individuals construct their actions. The author of this study is not going to focus on generating empathetic understanding of the people or on interpreting the process of interpretation through which individuals construct their actions. The author further believes that the outcomes of this study can be measured, quantified and deduced. The explanation clearly indicates that interpretivism and interpretivism embedded in symbolic interactionism are not suitable for this study, and are therefore not considered by the author.

### **3.2.3 *Research Methodology***

#### **3.2.3.1 *Justification on the adoption of Quantitative Methodology***

Methodology refers to a strategy, plan of action, a process or design that supports the adoption of the particular methods and subsequently links that to the outcomes determined earlier (Crotty, 1998). Bryman and Bell (2003) suggest that quantitative research and qualitative research form two distinctive methodologies, with the former emphasising quantification in the data collection and analysis. The latter, however, emphasises usage of words in collecting and analysing the data. According to Creswell (1994), a range of criteria may be chosen in making a decision between a quantitative and a qualitative approach towards a research problem, therefore, the research strategy to be adopted is dependent on the nature and type of research undertaken. It also requires the need to understand and utilises a research strategy relevant to the situations of the study. Creswell (1994) further states that in general, the researcher must consider not only the

researcher's needs or preferences but also other factors such as the nature of the research problem in choosing the research methodology. Qualitative and quantitative research, according to Smith and Dainty (1991), requires different epistemological assumptions and research methodologies. Please refer to the Table 3.1 for the differences between quantitative and qualitative research.

Table 3.1 Differences between Quantitative and Qualitative Research

<b>Quantitative</b>	<b>Qualitative</b>
Subject-object	Subject-subject
Separate values and facts	Intertwined-values and facts
Search for laws	Search for understanding

Source: (Smith and Dainty, 1991)

This study is going to measure the business student satisfaction and their perception of the factors; the influence of the demographic profiles on the results; identify the areas of service priority towards better allocation of the resources; and to discuss the practical implications of the study. As such; the author believes that the objectives can be achieved through a quantitative approach. This clearly explains the adoption of a quantitative methodology for the study. Many studies on student satisfaction have been undertaken within a quantitative paradigm (Athiyaman, 1997; Douglas *et al.*, 2006; Navarro *et al.*, 2005a, b) as such, a significant body of literature is already available to support the starting point of this study. They were further extended and linked specifically to answer this research problem under study. Burns (2000) suggests that another reason for the use of this methodology is that the major strength of quantitative strategy lies in its ability to

apply a degree of precision and control through the use of careful and thorough sampling design together with the application of reliable quantitative measurements.

Other reasons to justify the use of quantitative strategy for this present study are that this study, as put across by Yin (1994) and Lee *et al.*, (1999) requires the development and use of scales, scales items and measurement data. The author is analysing the level of student satisfaction and at the same time measuring the students' perceptions of the importance of the factors in the Malaysian private educational environment, as such; the use of quantitative strategy seems to fit well. Another reason relates to the size of the respondent population. A considerable proportion of the student population to be surveyed is necessary so as to have an accurate study of the satisfaction level and perceptions of the students. Benson (1977) reflects that a study must consider the social context in which they were created and the actions of the largest group of people will produce theories.

What can be seen here is that the research strategy to be adopted must take into consideration a study on the behaviour of a large number of respondents in a given environment without biases and without the influence of the researcher. The arguments, to a certain extent, justify the adoption of positivism; deductive approach; and the quantitative approach in investigating student satisfaction and the students' perceptions of the importance of the factors in the Malaysian private educational environment. The following section will discuss the survey methodology used in this study.

### ***3.2.3.2 Survey Methodology***

Wilson (2003) refers surveying to having structured questions for the participants and it also involves the recording of the responses. According to Kotler and Armstrong (2010), survey research is the most popular method for primary data collection and is considered the best approach for gathering descriptive information. They further state that asking questions will enable organisations to find out about people's knowledge, attitudes, perceptions, preferences, or buying behaviour. Kotler and Armstrong (2010) also mention that the major advantage of survey research as compared to other methods such as observation is its flexibility, that is, it allows researchers to obtain many different types of information in many different situations.

Malhotra (2002) also states that the survey approach is by far the most common method of data collection in marketing research and its advantages include ease and, reliability as well as simplicity. In addition to that it also simplifies coding, analysis and eventually the interpretation of the data. Survey research does pose some problems to researchers such as participants' inability to answer or even refusal to answer and at times provides responses that tend to please the researcher. Some respondents might view research as an intrusion to their privacy and some might be too busy to respond to the questions.

This study adopted classrooms-administered surveys instead of web-based surveys or postal mail survey because this approach appears to be simple, efficient, productive and does not seem to provide difficulties that commonly arise compared to the other

approaches. In addition, it helps towards the response rate too. The following section will explain the research method and the research design.

### **3.3      *Research Method and Research Design***

Research methodology shapes the choice and use of methods to be used in a study, as such; since survey methodology is adopted in this study, the research method used is questionnaire distribution. Cavana *et al.*, (2001) indicate that a research design involves a series of rational decision-making choices and each component of the research design provides several critical choice points. They further elaborate that the extent of the scientific rigour in a study is dependent on the clarity of defining the variables and the researcher's careful choice of the appropriate design alternatives, taking into consideration the aims of the study.

The subsequent discussion relates to the research method which includes the questionnaire structure and content, pre-testing and development, and the research design issues of sampling design, reliability and validity analysis, as well as the analytical strategy.

#### **3.3.1 *Questionnaire Structure and Content***

One of the most popular survey research instruments is the use of self-completion questionnaire by the respondents. Hinkin (1995) indicates that questionnaires seem to be widely used in collecting data in field research. Cavana *et al.*, (2001) indicate that questionnaire design is an integral part of the research activities. They further argue that a questionnaire enables the researchers to progress from gathering ideas and suggestions of

a few people at the qualitative stage to confirming whether the ideas and suggestions are widely held throughout the population targeted. This also indicates the importance of having a well-designed questionnaire for the purpose. Bryman and Bell (2003) state that the general principles of good questionnaire design include: asking questions in the most direct and brief manner; choosing simple words and avoiding using jargons; no repeating or overlapping questions; ensuring that the layout, structure and style are appropriate to the respondents as well as ensuring that the questions are sequentially arranged and provide ease and convenience to the respondents. According to Fowler (1993), designing a good questionnaire involves choosing the right questions that are able to meet the objectives of the research. He further states that the questions should be tested to ensure that the questions are workable under realistic conditions.

As this study used questionnaires to distribute to the students to measure their satisfaction level and their perceptions of the importance of the factors as such; the author is mindful of the principles indicated by Bryman and Bell (2003) and Fowler (1993). The questionnaire which was developed to determine the satisfaction level and the importance of the various categories of the service-product bundle consisted of six sections: lecture and tutorial facilities; ancillary (supporting) facilities; the facilitating goods; the explicit service; the implicit service; and the demographic information. The questionnaire was adopted and adapted based on Douglas *et al's*, (2006) service-product bundle model. The drivers of students' satisfaction and perceptions used in this study are presented in Table 3.2. The bundle which consists of the physical or facilitating goods, the explicit service, and the implicit service was designed as a 53-item, five-point agreement scale linked to

Table 3.2 Drivers of Students' Satisfaction and Perceptions

Physical Facilities and Facilitating goods as drivers	Teaching and Learning (Explicit and Implicit services) as drivers
<p>Lecture and Tutorial Facilities</p> <ul style="list-style-type: none"> <li>the lecture and tutorial rooms</li> <li>class sizes</li> <li>level of cleanliness</li> <li>lighting</li> <li>layout</li> <li>decoration, furnishings</li> <li>teaching and learning equipment</li> </ul> <p>Ancillary facilities</p> <ul style="list-style-type: none"> <li>on- campus cafeteria/ canteen facilities</li> <li>vending machines</li> <li>learning resources centre</li> <li>IT facilities</li> <li>toilet facilities</li> <li>recreational facilities</li> <li>availability of parking</li> <li>security measures</li> <li>registration procedures</li> <li>accommodation facilities/ services</li> </ul> <p>Facilitating goods</p> <ul style="list-style-type: none"> <li>lectures</li> <li>tutorials,</li> <li>power point/ slide presentations</li> <li>supplementary lecture materials/ handout</li> <li>supplementary tutorial materials/ handouts</li> <li>recommended core textbooks</li> <li>textbook value for money</li> <li>tuition fees</li> <li>textbooks' usefulness in enhancing understanding of modules</li> <li>textbooks' availability in local bookstores</li> </ul>	<p>Explicit Service</p> <ul style="list-style-type: none"> <li>subject expertise of the staff</li> <li>teaching ability of the staff</li> <li>the consistency of teaching quality irrespective of the lecturer</li> <li>the way your time table is organised</li> <li>the responsiveness of teaching staff to requests</li> <li>the level/ difficulty of subject content</li> <li>the course workload</li> <li>the appropriateness of the method of assessment (coursework and/ or examination)</li> <li>the appropriateness of the quantity of assessment</li> <li>the promptness of feedback on your performance</li> <li>the usefulness of feedback on your performance</li> <li>the helpfulness of technical staff</li> <li>the helpfulness of administrative staff</li> </ul> <p>Implicit Service</p> <ul style="list-style-type: none"> <li>the friendliness of teaching staff</li> <li>the approachability of teaching staff</li> <li>the concern shown when you have a problem</li> <li>the respect for your feelings concerns, and opinions</li> <li>the availability of staff</li> <li>the competence of staff</li> <li>the university environment's ability to make you feel comfortable</li> <li>the sense of competence, confidence and professionalism conveyed by the ambience in the lectures</li> <li>the sense of competence confidence and professionalism conveyed by the ambience in the tutorials, the feelings that your best interests are being served</li> <li>and the feelings that rewards (marks/ grades) gained are consistent with the efforts you put into assessment</li> </ul>

Source: Adopted and extended from Douglas *et al.*, (2006)



statements about satisfaction drivers (ranging from very unsatisfactory to very satisfactory) and statements about importance drivers (ranging from very unimportant to very important). Please refer to Appendix 3.2 for the sample of the questionnaire.

### ***3.3.2 Pre-testing and Development***

The initial version of the questionnaire with 26 items was developed based on an extract of the questionnaire of Douglas *et al*'s., (2006) as the copy of the questionnaire was not available at that point in time. The format of the initial questionnaire is presented in Figure 3.3. A paper copy of the questionnaire was pre-tested with a student sample of 30 and the result which includes the internal reliability of the measurement reported in Appendix 3.1. The internal reliability of the measurement is good as it stood above 0.80.

After several efforts made, the author managed to get the actual Douglas *et al*'s., (2006) questionnaire. The earlier questionnaire was then refined through consultation with both the local and international undergraduate business students and the actual questionnaire of Douglas *et al* (2006) was also discussed. In response to feedback, the scale items were added with the final number amounting to 53 items, the format has been revised and some terms were changed to represent the student context under study. The scale response categories remained at five-point responses. The revised format is reported in Figure 3.4.

Figure 3.3 Format of Pretesting Questionnaire

very unsatisfactory	unsatisfactory	neutral	satisfactory	very satisfactory
very unimportant	unimportant	neutral	important	very important

Figure 3.4 Format of Revised Questionnaire used for the Final Survey

**SECTION A** - *Please tick on the circle under each category of satisfaction and importance elements.*

## LECTURE AND TUTORIAL FACILITIES

*How do you rate...*

1. The lecture and tutorial rooms overall
2. Class sizes
3. The level of cleanliness
4. The lighting
5. The layout
6. The decoration
7. The furnishings
8. The teaching and learning equipment,  
for example, projectors, screens, whiteboards

SATISFACTION					IMPORTANCE				
Very unsatisfactory		Neutral		Very satisfactory	Very unimportant		Neutral		Very important
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Basically, the final version of the questionnaire was evaluated in terms of instructions, ease of use, reading level, clarity, item wording, and response formats and was judged to possess face and context validity (De Vellis, 2003). The final version of the questionnaire was also pre-tested on 20 students and positive feedback was given by the student sample.

### ***3.3.3 Sampling Design***

Sampling design decisions are important and it is part of the research design aspects that researchers have to be particularly aware of. The choice of the sampling methods will determine whether the results can be generalised or just offer convenience and timely information. The level of precision and confidence desired in estimating the population parameters is related to the sampling size. Cost has to be considered too (Cavana *et al.*, 2001).

A stratified random sampling was adopted whereby the first level of stratification involved the year of study (years 1, 2, and 3) and 100 questionnaires have been allocated for each level at each institution. The respondents were then chosen from the programmes and classes within the business schools of each institution. Classrooms-administered surveys were conducted and the classes were randomly selected. The author sought the assistance of the faculty members at the respective institutions to perform the task. This sampling method reduces the potential for human bias, as such; could provide a sample that is representative of the population being studied and hence allows generalisation.

This sampling method has also been adopted by O'Neil and Palmer (2004) and Prugsamatz *et al.*, (2006) in collecting their data.

In this thesis, business student satisfaction and the perceptions of the students of the importance of the factors in the Malaysian private educational environment are being examined. The sampling frame of this study consists of undergraduate business students at four educational institutions that range from 1,000 to 2,500 students. The institutions were selected because of their strategic locations to the target population as well as due to their accessibility. As this study is only considering the aggregated results of the institutions, as such; no analysis is going to be linked to the individual institution participating in this study. In view of that, the anonymity and confidentiality of the institutions are ensured. A quantitative sample of 1,200 students was drawn from the four institutions of which 300 questionnaires were distributed to each educational institution. The survey yielded a total of 823 usable responses and this represents 69% response rate.

#### **3.3.4 Reliability Analysis**

Reliability of a measure indicates stability as well as consistency which mean that the instrument measures the concept and is useful to assess the “goodness” of a measure (Cavana *et al.*, 2001). The reliability of the scale items used in this study was evaluated using Cronbach's alpha coefficient, which is a measure of how well a set manifest indicators measure the scale (De Vellis, 2003). There is no universal convention with respect to the minimum acceptable threshold value. Nunnally (1978) recommends an alpha value of 0.70, while Robinson *et al.*, in Hair *et al.*, (2006) suggest that a value of

0.60 is acceptable for exploratory research. However, De Vellis (2003) notes that it is not unusual for researchers to use scales with lower reliability coefficients. Sekaran (2003) on the other hand indicates that reliability that is above 0.80 is considered good and the range of 0.70 can be considered as acceptable.

The scale items of this study were evaluated in terms of corrected item to total correction using minimum threshold of 0.30 (De Vaus, 2002) and impact on alpha if item is deleted. The alpha coefficients for the lecture and tutorial facilities yield (0.86); ancillary (supporting) facilities (0.86); facilitating goods (0.87); explicit services (0.91); implicit services (0.92) and the overall reliability of 0.96. The internal reliability analysis of the satisfaction drivers is, therefore, good and indicates suitability of the scale composition. Even the internal reliability of the scales used in the pre-test is good. In view of that, all the drivers were retained to be examined further with the use of factor analysis.

### **3.3.5 *Validity Analysis***

Validity, as explained by Peterson (2000) refers to the extent to which the response given is a true measure and mean what the researcher expects it to be. This study undertook two pre-tests before the final survey was carried out. The types of pre-tests included in this study were face validity, content validity and pilot study. These tests are considered important in carrying out the research activities (Cavana *et al.*, 2001). Burns (1994) states that face validity actually address the concern of whether the instrument appears to measure the concepts under study. The clarity of the wording of the items and the level of understanding of the respondents will have to be considered too. As for content validity,

Burns (1994) says that it refers to the representativeness of the questionnaire relating to the theoretical constructs being measured. In this study, it is based on the literature search and in addition, the use of factor analysis will also help to ensure that the content of the scale items appear to reflect what it is intended to measure.

### ***3.3.6 Analytical Strategy***

The data has been analysed using SPSS Version 17.0 for Windows, a statistical package for the Social Sciences. In SPSS, a range of analyses techniques provided were used including descriptive, frequencies, reliability test and inferential statistics. Descriptive statistics, such as means and standard deviations, as well as the frequencies were used to describe the data, trends, and to provide summaries. Factor analysis was applied to the satisfaction drivers to test the dimensionality of the adopted scales. Factor scores were saved for the analysis of variance (ANOVA) and the independent t-tests to examine the significance differences of the dependent variables and the independent variables of the demographic profiles. All statistical tests are applied using a significance level of five per cent. The use of quadrant analysis, on the other hand, helped to determine better allocation of resources to areas that are of importance but low in satisfaction to the educational institutions. This section continues with the discussion on each technique used in this study.

#### ***3.3.6.1 Descriptive Statistics***

To analyse students' level of student satisfaction and their perceptions of the importance of the factors in the Malaysian private educational environment, the mean student scores

and the standard deviation were computed and the drivers were ranked accordingly. The respondents were asked to provide their ratings on the degree of their satisfaction level and their perceptions of the importance of the drivers based on the five-point Likert scale as discussed earlier.

#### **3.3.6.2 Factor Analysis**

Factor analysis is a multivariate technique that identifies the dimensions of the original observed measures of a scale in terms of hierarchical structure of non-observed latent variables or factors (Hair *et al.*, 2010). The items in the original scale should be metric and correlated. The factors are derived in descending order of importance in terms of their contributions to the explanation of the total variance of the scale (Hair *et al.*, 2010). The broad aims of the analysis are to identify the number of factors and interpret what they represent.

The theoretical framework is the factor model that explains the observation on the original variable, its variance and the covariance between pairs of variables. According to the model, the original variables are determined by a linear combination of common factors and the influence of a unique factor. The model is based upon a series of assumptions. The original variables and the common factors are standardised to have zero mean and unit variance. The covariance between common factors, unique factors and between pairs of common factors and unique factors are zero.

In this study, factor analysis is applied to the scales of the satisfaction drivers. The analysis employs principal components analysis with Varimax rotation and extracts factors with eigenvalues greater than unity. Factor scores, which consist of 12 factors of the underlying dimensions of the satisfaction drivers, are saved for the ANOVA and the independent t-tests. Confirmation that the data are correlated is evaluated using Bartlett's test for sphericity. Goodness of fit is reported using communalities and total variance explained.

#### ***3.3.6.3 Analysis of Variance (ANOVA)***

According to Lethen (1996), ANOVA tests the equality of three or more means at one time by using variances. Zikmund (2003) further elaborates that ANOVA investigates the effects of one treatment variable on an interval-scaled; also involves hypothesis-testing technique to examine whether statistical differences in the means occur between the groups. This study used factor scores to test the hypotheses using ANOVA to determine the relationships between mean student ratings for each element of the service-product bundle and the demographic profiles such as semester grade, year of study, and the programme of study. In each situation, where ANOVA resulted in statistically significant F ratios, the post-hoc comparison (Bonferroni method) was adopted to determine between in which variables significant differences existed. The hypotheses relate to:



H1: There are significant differences in the level of satisfaction between year of study and the 12 factors

H2: There are significant differences in the level of satisfaction between programme of study and the 12 factors

H3: There are significant differences in the level of satisfaction between semester grade and the 12 factors

#### ***3.3.6.4 Independent t-test***

Coakes and Steed (2007) indicates that the use of independent t-test is appropriate when the participants in one condition are different from participants in the other condition. Another term for this is called a between-subjects design. In this study, the independent t-tests were used to determine whether significant differences exist between student satisfaction according to gender and nationality. The t-tests were adopted instead of ANOVA as they seem to be a more powerful statistic when only two means are being compared (Popham and Sirotnik, 1992) and in this study, the independent variables consist of gender and nationality. Factor scores were used to test the hypotheses and the hypotheses relate to:

H4: There are significant differences in the level of satisfaction between gender and the 12 factors

H5: There are significant differences in the level of satisfaction between nationality and the 12 factors

### **3.3.6.5 *Quadrant Analysis***

This study goes beyond just examining student satisfaction as it also addresses the importance of the attributes at an educational institution as well as evaluating the influence of the demographic profiles have on the results. Another analysis adopted in this study is the quadrant analysis, a graphic technique used to analyse importance and attribute ratings. According to Dillon *et al.*, (1993), quadrant analysis will be able to provide some tools to the service providers on how to allocate their resources in a more efficient manner. Martilla and James (1977) were pioneers to apply this analysis to the elements of a marketing programme. In this study, the author used the mean of both the satisfaction and importance elements towards plotting the satisfaction-importance grid. The grand means were used to determine the cross-hairs of the point of intersection. Eleven quadrant analyses will be presented of which some strategic alternatives can be offered to the business schools and also for the educational institutions in general.

### **3.3.6.6 *Other Data Analyses Methods not considered***

The author also explored using multiple regression analysis to identify whether the five demographic profiles of gender, nationality, year of study, programme of study, and the semester grade are predictors of the satisfaction levels and the perceptions of the importance of the factors of the business students. According to Hair *et al.*, (2010), multiple regression analysis is a statistical technique used to examine the relationship between a single dependent variable and several independent variables. After conducting the preliminary analysis, the author discovered that they were not helpful at explaining

results of relationships among the variables. In view of that, the author decided not to proceed with the multiple regression analysis.

The author of this study is also not considering structural equation modelling (SEM) as one of the data analysis methods because SEM looks at the causality between factors. This study is not assessing whether satisfaction will lead to loyalty or retention and the main aim is to identify and evaluate the drivers of business student satisfaction in the Malaysian private educational environment. They could, however, be an area for further research. The research objectives in the following section clearly indicate that causality of variables is not considered at all.

### **3.4 Ethical Issues**

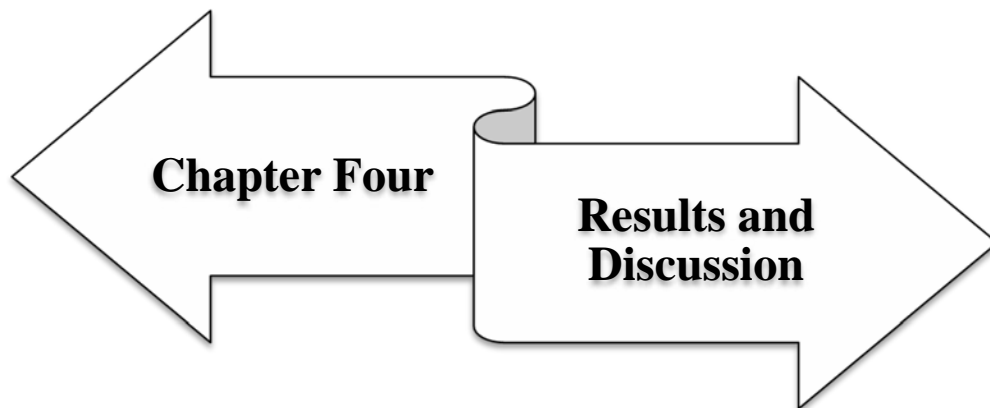
Saunders *et al.*, (2003) refer ethics to the appropriateness of a researcher's behaviour with regards to the rights of respondents in the research or how they are affected by it. Patton (2002) adds to the point by stating that a researcher has to clarify their obligations to emphasise awareness of ethical principles as well as ethical issues in carrying out the research activities and this also means that the researcher is required to adopt an ethical framework in dealing with the ethical issues. This study adhered strictly to the Newcastle Business School Ethics Policy. Ethical issues such as informed consent, beneficence, confidentiality and anonymity as stated by Trochim (2006) were addressed. No one under 18 years of age was surveyed (Please refer to Appendices 3.3 and 3.4 for the participant and organisational consent forms)

By *informed consent*, the prospective respondents have to be fully informed about the purpose of conducting the research and this is important so as to enable them to decide whether to participate or not. *Voluntary participation* indicates that people should not be forced into participating in the research activities. Bryman (2004) and Patton (2002) clearly discuss the issues. This study considered the ethical issues and addressed that in the letter to the respondents together with the questionnaire. The purpose of the research was also communicated to the management of the educational institutions towards obtaining the permission to conduct the study (please refer to Appendix 3.5) for the sample of the letter). By *beneficence*, the author ensures the respondents that this study promotes their interests and those impacted by this study and that it will not harm them. The respondents were also informed that the data obtained will be kept in *anonymity* and will be treated with *confidentiality*, which means that the information will not be made known to anyone who is not involved in the study and this is done to protect the respondents' privacy.

### **3.5 Chapter Summary**

This chapter commenced by presenting the conceptual framework of this study. This is then followed by the explanation on the research philosophy of this study. The author clearly stated and justified the adoption of objectivism as the epistemology and positivism as the theoretical perspective of this study. Survey research methodology has been used as the methodology of this study and as for the methods, the author utilised questionnaires, specifically using classrooms-administered surveys to distribute to the respondents. The research design sections discussed the questionnaire structure and

content, the pre-testing and development, and justified the sampling strategy used in the study. The reliability and validity analysis undertaken were also explained followed by a thorough explanation on the data analytical strategy of the study. The discussion continued with an explanation on the ethical issues. The ethical issues, such as informed consent, voluntary participation, beneficence as well as anonymity and confidentiality were explained. The subsequent chapter will report on the results of this study.



## **4.0 Introduction**

This chapter reports the results of this study on business student satisfaction in the Malaysian private educational environment. The chapter begins by presenting the profiles of the 823 students who responded to this study. Next, the chapter continues with the ranking and analysis of the means of both the satisfaction and importance drivers. The chapter then proceeds with the identification of the underlying dimensions of the satisfaction drivers; examines the influences of the demographic profiles have on the results; and analyses the satisfaction and importance ratings by plotting the results on grids; before concluding the chapter.

### **4.1 Respondents' Profiles**

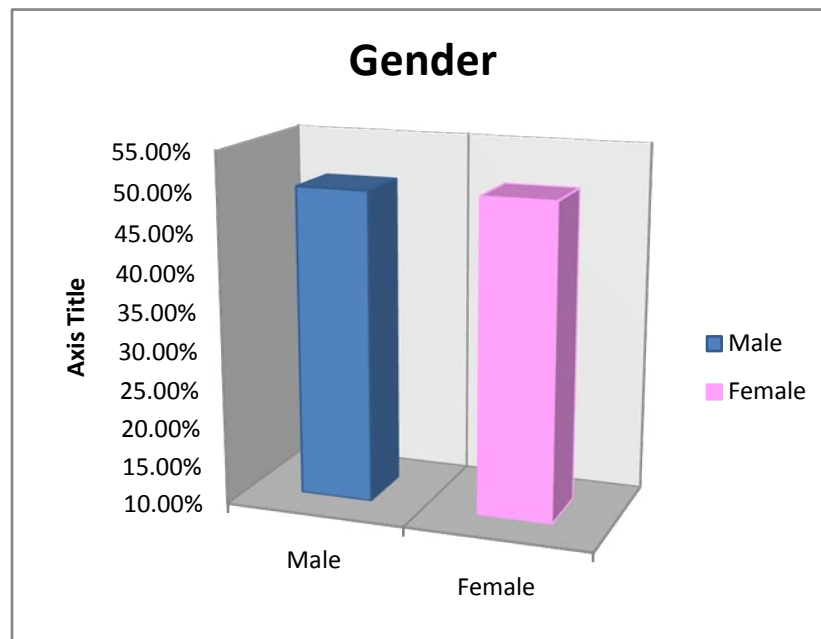
A total of 1,200 questionnaires were distributed to undergraduate business students at four private educational institutions in Malaysia. From the 871 returned questionnaires, only 823 were usable and this represents 69% response rate. Forty-eight questionnaires were discarded due to partly blank responses. This response rate is considered very satisfactory compared to studies on student satisfaction in Malaysia by Yunus *et al.*, (2009) with 50% response rate, and a study by Poh and Samah (2009) with 58% response rate.

The following paragraphs in this section will present the profiles of the 823 respondents based on their gender, year of study, nationality, programme of study, semester grade. The proportion of the respondents from the four participating institutions will also be presented.

#### **4.1.1 Gender**

Figure 4.1 shows that from the 823 students who responded to the questionnaires, 50.1% were females and 49.9% males. This shows that almost equal breakdown of female and male undergraduate business students participated in this study.

Figure 4.1 Proportions of Respondents by Gender

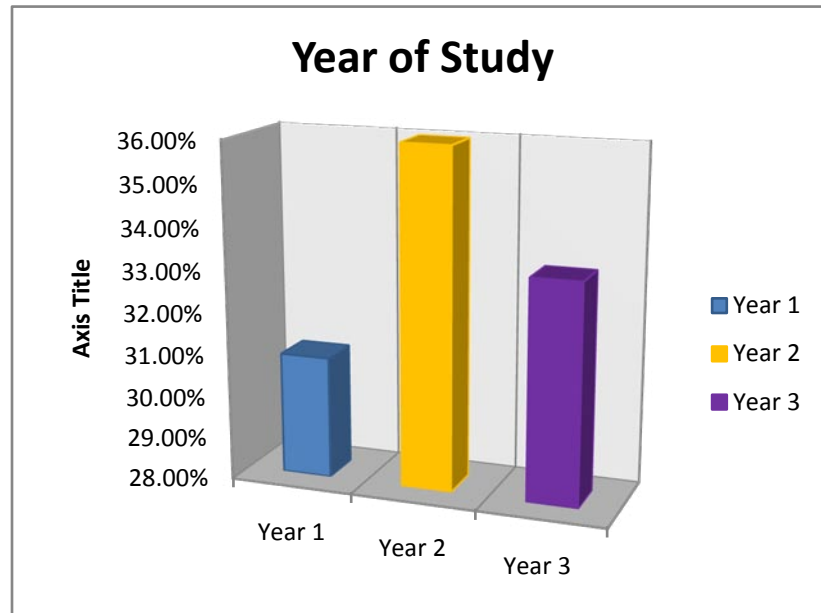


#### **4.1.2 Year of Study**

Students from years of study 1, 2, and 3 participated in this study. Figure 4.2 shows that a relatively close split can be seen between the three years of study as the proportion of the respondents from years of study 1, 2, and 3 stood at 30.9%, 36%, and 33.2 % respectively.



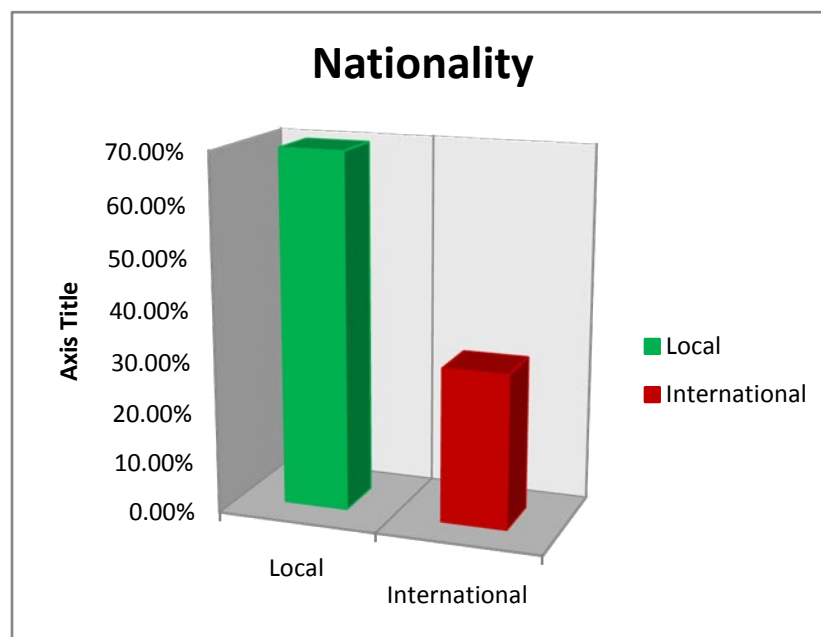
Figure 4.2 Proportions of Respondents by Year of Study



#### 4.1.3 Nationality

Both local and international students participated in this study of which the proportion is 69.7% local and 30.3% international students (please refer to Figure 4.3)

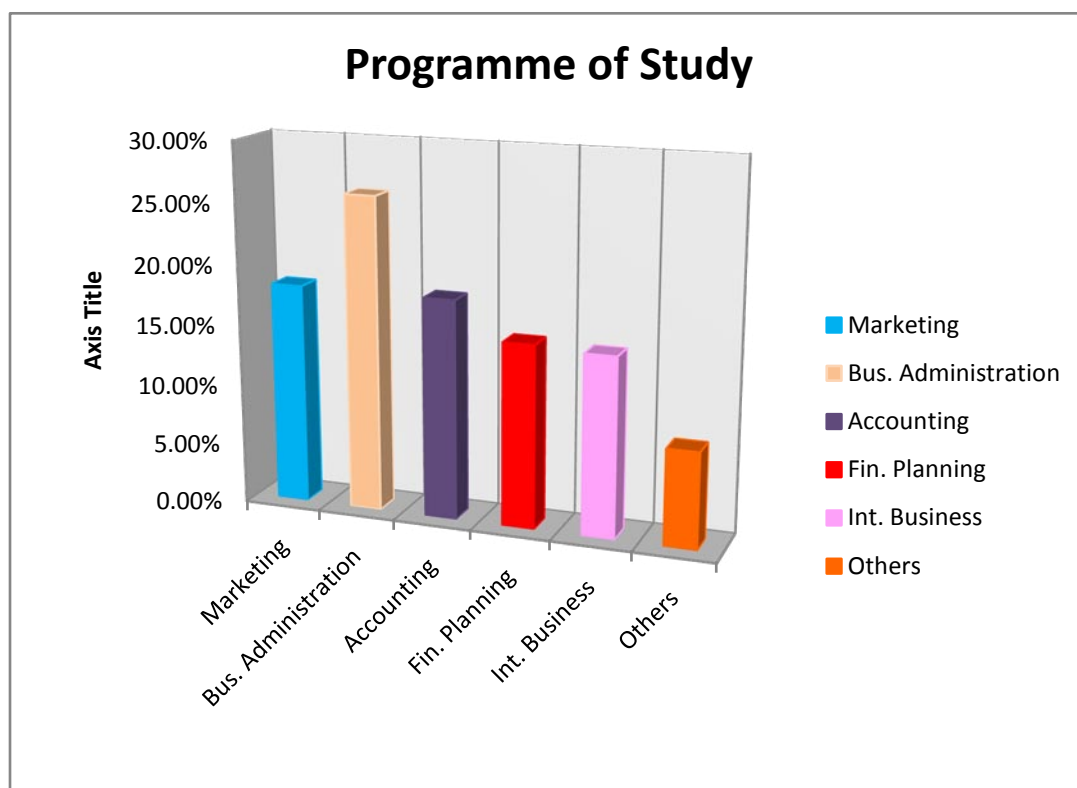
Figure 4.3 Proportions of Respondents by Nationality



#### 4.1.4 Programme of Study

An exploration of the data by the programme of study shows dominance by the respondents from the business administration programme (25.9%). A relatively close split can be observed between the respondents from the marketing, accounting, and financial planning programmes. A low proportion (7.9%) came from respondents from the other programmes, such as Business Communication and Business Law (please refer to Figure 4.4)

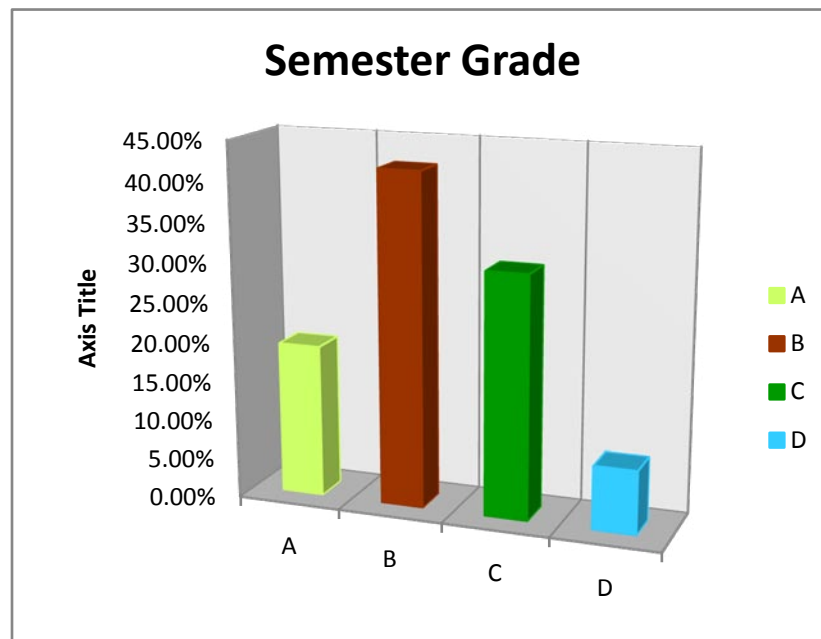
Figure 4.4 Proportions of Respondents by Programme of Study



#### **4.1.5 Semester Grade**

The data of the respondents based on the semester grade shows dominance of the “B” grade respondents (41.9%), followed by “C” grade (30.6%), “A” grade (19.3%) and finally the “D” grade (8.1%). Figure 4.5 reports the findings.

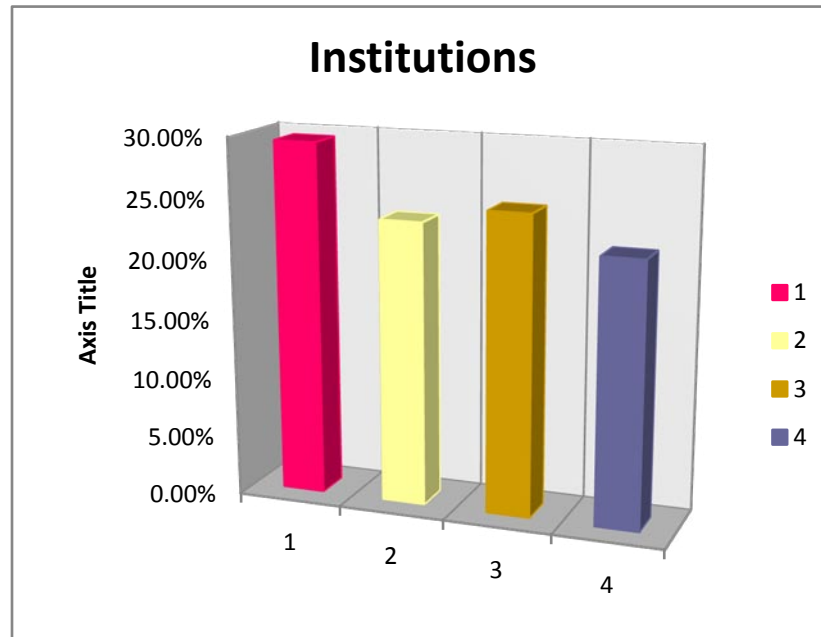
Figure 4.5 Proportions of Respondents by Semester Grade



#### **4.1.6 Institutions**

Respondents from four private educational institutions in Malaysia participated in this study. Figure 4.6 shows that almost equal breakdown can be observed from the data collected with institution 1 (29.5%), institution 2 (23.6%), institution 3 (24.9%), and institution 4 (22%).

Figure 4.6 Proportions of Respondents by Institutions



The next section will present and evaluate the ranking of means for both the satisfaction and the importance drivers.

#### 4.2 Ranking of Means of both the Satisfaction and Importance Drivers

In order to evaluate the drivers influencing business student satisfaction and their perceptions of each driver, mean scores and standard deviations were computed. The respondents were required to provide the ratings based on a five-equal interval scale ranging from 1 being the lowest to 5 being the highest score. A high score means a driver is important and a respondent is satisfied. The results are presented in Table 4.1.

Table 4.1 Mean Scores and Standard Deviation of Satisfaction and Importance Drivers

Ranking	Satisfaction drivers	Mean (Std. Dev)	Importance drivers	Mean (Std. Dev)
1	The lighting	3.667 (0.991)	The lectures overall	4.464 (0.750)
2	The power point/ slide presentations	3.611 (0.871)	The teaching and learning equipment, for example, projectors, screens, whiteboard	4.463 (0.840)
3	The approachability of teaching staff	3.566 (0.919)	The tutorial overall	4.442 (0.810)
4	The friendliness of teaching staff	3.560 (0.993)	The teaching ability of the staff	4.382 (0.843)
5	Supplementary lecture materials/ handout	3.533 (0.899)	Supplementary lecture materials/ handout	4.363 (0.817)
6	The lectures overall	3.527 (0.914)	The lighting	4.356 (0.835)
7	The level of cleanliness	3.524 (0.998)	The power point/ slides presentation	4.346 (0.818)
8	Supplementary tutorial materials/ handout	3.523 (0.920)	The IT facilities	4.345 (0.866)
9	The tutorial overall	3.497 (0.888)	The level of cleanliness	4.338 (0.881)
10	The sense of competence, confidence and professionalism conveyed by the ambience in the lectures	3.457 (0.906)	The consistency of teaching quality irrespective of the lecturer	4.335 (0.825)
11	The teaching and learning equipment, for example, projectors, screens, whiteboard	3.454 (1.076)	The friendliness of teaching staff	4.331 (0.862)
12	The sense of competence, confidence and professionalism conveyed by the ambience in the tutorials	3.427 (0.885)	The way your time table is organised	4.327 (0.872)
13	Class sizes	3.417 (0.940)	Supplementary	4.320 (0.840)

Table 4.1 Continued

14	The lecture and tutorial rooms overall	3.401 (0.876)	tutorial materials/ handout The feelings that rewards-marks/ grades are consistent with the efforts you put into assessment	4.316 (0.856)
15	The consistency of teaching quality irrespective of the lecturer	3.379 (0.929)	The concern shown when you have a problem	4.316 (0.843)
16	The teaching ability of staff	3.379 (0.920)	The toilet facilities overall	4.310 (0.920)
17	The recommended core textbooks overall	3.380 (0.970)	The university environment's ability to make you feel comfortable	4.310 (0.871)
18	The concern shown when you have a problem	3.377 (1.015)	The approachability of teaching staff	4.286 (0.838)
19	The responsiveness of teaching staff to request	3.371 (0.944)	The security measures overall	4.281 (0.928)
20	The appropriateness of the method of assessment-coursework and the examination	3.368 (0.924)	The lecture and tutorial rooms overall	4.260 (0.926)
21	The appropriateness of style of assessment-individual and/ or group work	3.360 (0.923)	The tuition fees	4.258 (0.986)
22	The layout	3.356 (0.888)	The on-campus cafeteria/ canteen facilities	4.255 (0.920)
23	The level/ difficulty of subject content	3.351 (0.901)	The subject expertise of the staff	4.250 (0.879)
24	The university environment's ability to make you feel comfortable	3.349 (1.074)	The respect for your feelings, concerns and opinions	4.233 (0.876)
25	The respect for	3.328 (1.014)	The	4.231 (0.963)

Table 4.1 Continued

26	your feelings, concerns and opinions The appropriateness of the quantity of assessment	3.295 (0.872)	accommodation facilities/ services overall The helpfulness of administrative staff	4.220 (0.879)
27	The usefulness of feedback on your performance	3.293 (0.968)	The feelings that your best interests are being served	4.211 (0.894)
28	The subject expertise of the staff	3.293 (0.900)	The responsiveness of teaching staff to requests	4.204 (0.860)
29	The competence of staff	3.290 (0.898)	The learning resources centre overall	4.199 (0.867)
30	The availability of staff	3.287 (0.955)	The sense of competence, confidence and professionalism conveyed by ambience in the tutorials	4.182 (0.849)
31	The learning resources centre overall	3.284 (0.864)	The sense of competence, confidence and professionalism conveyed by the ambience in the lectures	4.168 (0.906)
32	The textbooks' usefulness in enhancing understanding of the modules	3.275 (0.962)	The availability of staff	4.165 (0.864)
33	The feelings that rewards-marks/ grades gained are consistent with the efforts you put into assessment	3.269 (1.054)	The appropriateness of the method of assessment-coursework and/ or examination	4.158 (0.892)
34	The course workload	3.261 (0.927)	The level/ difficulty of subject content	4.157 (0.872)
35	The promptness of feedback on your performance	3.252 (0.929)	The appropriateness of the style of	4.154 (0.874)

Table 4.1 Continued

36	The helpfulness of technical staff	3.250 (0.959)	assessment-individual and/ or group work	4.150 (0.979)
37	The security measures overall	3.225 (1.047)	The registration procedures	4.147 (0.889)
38	The feelings that your best interests are being served	3.211 (0.977)	The recommended core textbooks overall	4.141 (1.034)
39	The furnishings	3.131 (1.014)	The availability of parking	4.136 (0.954)
40	The helpfulness of the administrative staff	3.107 (1.115)	The textbooks' usefulness in enhancing understanding of the modules	4.136 (0.918)
41	The textbooks' availability in local bookstores	3.106 (1.044)	The usefulness of feedback on your performance	4.125 (0.888)
42	The way your time table is organised	3.105 (1.146)	The helpfulness of technical staff	4.115 (0.897)
43	The decoration	3.098 (0.913)	The competence of staff	4.102 (2.005)
44	The recreational facilities overall	3.091 (0.929)	Class sizes	4.101 (0.907)
45	The IT facilities overall	3.077 (1.084)	The promptness of feedback on your performance	4.092 (0.955)
46	The vending machines overall	3.015 (0.945)	The textbooks' availability in local bookstores	4.080 (0.884)
47	The toilet facilities overall	2.950 (1.171)	The course workload	4.057 (0.945)
48	The registration procedures	2.921 (1.133)	The furnishings	4.044 (0.974)
49	The accommodation facilities/ services overall	2.902 (1.071)	The textbook value for money	4.044 (0.877)
50	The on-campus cafeteria/ canteen facilities	2.760 (1.110)	The appropriateness of the quantity of assessment	3.942 (0.917)
51	The textbook value for money	2.759 (1.106)	The recreational facilities overall	3.818 (0.906)
			The layout	



Table 4.1 Continued

52	The availability of parking	2.565 (1.189)	The vending machines overall	3.680 (0.992)
53	The tuition fees	2.469 (1.167)	The decoration	3.543 (1.037)

## KEY

Blue- Physical facilities and facilitating goods

Brown- Teaching and learning (explicit and implicit services)

The results show that respondents are most concerned with the physical facilities/ facilitating goods whereby lighting and power point/ slide presentations seem to have the highest scoring means followed by two teaching and learning elements of the approachability of teaching staff and the friendliness of teaching staff. The ranking continues with the scores of physical facilities and the facilitating goods of supplementary lecture materials/ handout, the lectures overall, the level of cleanliness, the supplementary tutorial materials/ handout, the tutorials overall.

The respondents also perceive the physical and facilitating goods such as the lectures overall, the teaching and learning equipment, for example, projectors, screens, whiteboard, and the tutorial overall as most important. The ranking of the importance drivers continues with the teaching ability of the staff and again followed by the physical facilities and facilitating goods such as supplementary lecture materials/ handout, the lighting, power point/ slides presentation, the IT facilities, and the level of cleanliness. The results contradict with many findings by (Douglas *et al.*, 2006; LeBlanc and Nguyen 1997; Navarro *et al.*, 2005 a, b; Price *et al.*, 2003; and Sapri *et al.*, 2009).

The findings of Douglas *et al.*, (2006) indicate that students have given high ranking scores to the teaching ability of staff and subject expertise of staff and only then followed

by the physical facilities and the facilitating goods. Le Blanc and Nguyen's (1997) findings reveal that, in descending order of importance, the factors are reputation, administrative personnel, faculty, curriculum, responsiveness, physical evidence, and access to facilities. The results of Navarro *et al.*, (2005 a, b) show that teaching staff, enrolment and course organisation are the elements that have impact on student satisfaction. Teaching reputation receives high scores in the study by Price *et al.*, (2003). Sapri *et al.*, (2009) discover that teaching quality and teaching attitude or approachability of staff obtain high scores followed by the physical facilities.

Oldfield and Baron (2000), however, state that the physical evidence that is linked to a service can be developed to create a level of satisfaction. They further indicate that students tend to spend a lot of their time in contact with the physical facilities such as being in the lecture theatres, learning resource centres, IT laboratories, libraries, and as such,; they would be influenced by all those physical facilities. Wakefield and Blodgett (1994, p. 68) agree by saying that "students who spend hours every day in a school are likely to have attitudes toward the school system that are strongly influenced by the physical facilities". This probably provides the reasons why the respondents in this study are more concerned and place more importance on the physical facilities and the facilitating goods followed by the teaching and learning drivers.

On the other hand, the lowest scores can be seen on satisfaction drivers, such as the tuition fees, the availability of parking, the textbook value for money, the on-campus/ canteen facilities, the accommodation facilities/ services overall, the registration

procedures and these consist of the physical facilities, ancillary facilities and the facilitating goods. The respondents also place less importance on the drivers such as the vending machines, the layout, the recreational facilities overall, the textbook value for money, and the furnishings. The results are, however, consistent with the findings by Douglas *et al.*, (2006) as well as Sapri *et al.*, (2009).

Another important point to mention is that the ranking also reveals that supplementary lecture materials/ handout ranked at number five for both the satisfaction and importance drivers. This, in a way, provides some useful indication to the business schools in delivering the educational service. The results also indicated that the lowest score given by the students relate to the tuition fees. This showed that students are less satisfied with tuition fees than any other drivers. This also is an indication that has to be addressed by educational institutions.

In summary, the ranking of the means for both the satisfaction and importance drivers in this study indicate that students want a conducive and comfortable learning environment during the interaction with the teaching staff. The students are concerned and place importance on the lighting, power point/ slide presentations, the lectures overall, the teaching and learning equipment followed by the approachability of the teaching staff, the teaching ability of the staff and the friendliness of the teaching staff. The students, however, place less importance and are less concerned with some drivers of the physical facilities and facilitating goods such as decoration, vending machines, and layout.

The next phase of the analysis of the results relates to the identification of the underlying dimensions of the satisfaction drivers. Factor analysis is adopted to examine the most important dimensions influencing business student satisfaction in the Malaysian private educational environment. The following section will present the analysis.

#### **4.3 Identification of the Underlying Dimensions of the Satisfaction Drivers (Factors)**

The categories in the service-product bundle were further analysed to examine the underlying dimensions of the satisfaction drivers of the undergraduate business students in the Malaysian private educational environment using factor analysis.

The analysis was conducted incorporating the procedure factor of SPSS. The preliminary analysis utilised all the 53 satisfaction drivers of the physical or facilitating goods, explicit, and implicit service on a five-point scale ranging from very unsatisfactory to very satisfactory. The use of the satisfaction scales with the five responses suggests an equal interval of one between successive categories and, therefore, is a metric interval measure. Confirmation that the test variables are inter-correlated is indicated by a KMO index of 0.697 categorised by Kaiser (1974) as 'Middling'. Bartlett's test of sphericity, results in the rejection of the null hypothesis, that the test variables are not inter-correlated, at the five per cent significance level ( $\chi^2(1378) = 23909.566$ , Sig = 0.0000)

The extraction method employed principal components analysis with Varimax rotation and the extraction criterion was to derive factors with eigenvalues greater than unity. The initial solution yielded eight factors. In order to achieve the minimum threshold of total

variance explained of 60 per cent (Hair *et al.*, 2010), four factors were added making the factor solution to 12 and total variance explained stood at 64.6 per cent. In addition, factor solutions ranging from five factors to 13 factors were examined and the factors were interpreted accordingly. Twelve factors seem to give the best representation of the underlying dimensions of the satisfaction drivers. Factor scores were generated for each respondent for the subsequent analysis on the influence of the demographic profiles on the results.

A reliability test using Cronbach's alpha is used to confirm the internal consistency of each of the factors. The first factor included eight drivers such as the sense of competence, confidence and professionalism conveyed by the ambience in the tutorials; the feelings that your best interests are being served; the sense of competence, confidence and professionalism conveyed by the ambience in the lectures; the feelings that rewards-marks/ grades gained are consistent with the efforts you put into assessments; the university environment's ability to make you feel comfortable; the competence of staff; the availability of staff; and the respect for your feelings, concerns and opinion. An alpha value of 0.89 was produced.

The second factor included six drivers which were the appropriateness of the method of assessment-coursework and/ or examination; the appropriateness of the style of assessment-individual and/ or group work; the course workload; the level/ difficulty of subject content; the appropriateness of the quantity of assessment; and the way your time table is organised. An alpha value of 0.85 is recorded. The third factor included seven

drivers consisting of the decoration; the layout; the furnishings; the teaching and learning equipment, for example, projectors, screens, whiteboards; the lighting; the level of cleanliness; and the lecture and tutorial rooms overall. An alpha value of 0.85 resulted.

The fourth factor had five drivers including supplementary tutorial materials/ handouts; supplementary lecture materials/ handout; the tutorials overall; the power point/ slides presentation-where applicable; the lectures overall with an alpha value of 0.88. The fifth factor comprised of five drivers including textbook value for money; the tuition fees; the textbooks' availability in local bookstores; the textbooks' usefulness in enhancing understanding of the modules; the recommended core textbooks overall; with an alpha value of 0.79. The sixth factor is tested with five drivers such as the IT facilities; the learning resources overall; the vending machines overall; the on-campus cafeteria/ canteen facilities; the recreational facilities overall and the alpha value of 0.78 was produced.

The seventh factor consisted of five drivers including the availability of parking; the security measures overall, the registration procedures; the toilet facilities overall; the accommodation facilities/ services overall and showed an alpha value of 0.77. The eighth factor had three drivers including the approachability of teaching staff; the friendliness of teaching staff; and the concern shown when you have a problem and had an alpha value of 0.86. The ninth factor was tested with four drivers including the teaching ability of staff; the consistency of teaching quality irrespective of the lecturer; the responsiveness

of teaching staff to requests; and the subject expertise of the staff and showed an alpha value of 0.82.

The tenth factor included two drivers; the helpfulness of administrative staff; and the helpfulness of technical staff and resulted in an alpha value of 0.74. The eleventh factor was tested with two drivers of the usefulness of feedback on your performance and the promptness of feedback on your performance and had an alpha value of 0.78. The 12<sup>th</sup> factor relates to a single driver of class sizes. All the 12 factors seem to meet the reliability level and this indicates that there are 12 factors in the final solution.

#### ***4.3.1 Results of the Factor Analysis***

The result of the factor analysis is presented in Table 4.2. The table shows the rotated factor matrix for satisfaction drivers, which consists of a matrix of the factor loadings for each driver onto each factor. This matrix is calculated after rotation for further interpretation. Communalities, eigenvalues, variances, and cumulative variance are also included.

Table 4.2 Rotated Factor Matrix for Satisfaction drivers

Satisfaction drivers/ Factor Number/ h <sup>2</sup>	1	2	3	4	5	6	7	8	9	10	11	12	h <sup>2</sup>
The sense of competence, confidence and professionalism conveyed by the ambience in the tutorials	<b>.704</b>	.282	.141	.141	.068	.137	.070	.177	.117	-.039	.073	.158	.720
The feelings that your best interests are being served	<b>.685</b>	.206	.102	.149	.124	.142	.057	.101	.066	.158	.226	-.008	.673
The sense of competence, confidence and professionalism conveyed by the ambience in the lectures	<b>.655</b>	.299	.173	.214	.058	.099	.115	.235	.149	.000	.041	.143	.721
The feelings that rewards-marks/ grades gained are consistent with the efforts you put into assessment	<b>.608</b>	.277	.157	.102	.136	.152	.026	.115	.054	.096	.271	-.053	.626
The university environment's ability to make you feel comfortable	<b>.574</b>	.185	.253	.117	.082	.167	.220	.110	.036	.095	-.023	.131	.564
The competence of staff	<b>.560</b>	.023	.144	.095	.216	.112	.138	.202	.280	.433	-.024	.045	.731
The availability of staff	<b>.531</b>	.066	.158	.137	.188	.118	.147	.171	.236	.411	-.101	.058	.668
The respect for your feelings, concerns and opinions	<b>.507</b>	.110	.065	.164	.131	.153	.176	.411	.181	.182	.108	.042	.620
The appropriateness of the method of assessment-coursework and/ or examination	.167	<b>.714</b>	.109	.085	.207	.104	.036	.238	.107	.088	.114	.053	.694
The appropriateness of the style of assessment-individual and/ or group work	.138	<b>.693</b>	.156	.173	.131	.123	.075	.171	.059	.103	.200	-.073	.699
The course workload	.275	<b>.671</b>	.134	.090	.194	.115	.103	.043	.133	.139	.082	.009	.612
The level/ difficulty of subject content	.325	<b>.603</b>	.036	.131	.122	.116	.067	-.029	.249	.124	-.083	.188	.610
The appropriateness of the quantity of assessment	.196	<b>.601</b>	.125	.176	.140	.130	.091	.169	.077	.052	.326	.055	.658
The way your timetable is organised	.214	<b>.419</b>	.269	.143	.227	.058	.266	-.068	.130	.137	-.021	-.055	.497
The decoration	.110	.075	<b>.744</b>	.012	.213	.125	.182	-.031	.057	.013	.165	.012	.698
The layout	.110	.147	<b>.703</b>	.100	.142	.102	.119	.153	.086	.023	.081	.126	.636
The furnishings	.158	.085	<b>.695</b>	.093	.214	.200	.116	.005	.116	-.028	.073	.039	.644
The teaching and learning equipment, for example, projectors, screens, whiteboards	.134	.147	<b>.587</b>	.200	.059	.244	.076	.070	.184	.110	-.028	-.030	.546
The lighting	.143	.162	<b>.547</b>	.223	.061	.107	.049	.217	-.042	-.009	-.139	.372	.619
The level of cleanliness	.117	.100	<b>.543</b>	.120	-.080	.138	.088	.152	-.066	.249	-.053	.320	.568
The lecture and tutorial rooms overall	.129	.016	<b>.456</b>	.202	.117	.150	.027	-.032	.311	.143	.208	.425	.647
Supplementary tutorial materials/ handouts	.166	.158	.162	<b>.779</b>	.185	.123	.083	.127	.067	.088	.128	-.040	.788
Supplementary lecture materials/ handouts	.157	.180	.129	<b>.773</b>	.161	.100	.093	.115	.085	.137	.103	-.004	.765
The tutorials overall	.167	.069	.155	<b>.606</b>	.164	.104	.087	.143	.358	.097	.125	.146	.665
The power point/ slide presentations-where applicable	.198	.228	.132	<b>.599</b>	.162	.147	.153	.066	.260	-.031	-.022	.175	.643
The lectures overall	.173	.099	.180	<b>.519</b>	.138	.082	.089	.213	.465	.054	.209	.116	.696



Table 4.2 Rotated Factor Matrix for Satisfaction drivers (continued)

Satisfaction drivers/ Factor Number/ h <sup>2</sup>	1	2	3	4	5	6	7	8	9	10	11	12	h <sup>2</sup>
The textbook value for money	.166	.098	.070	.149	<b>.665</b>	.069	.172	.050	.129	.165	.148	.111	.603
The tuition fees	.153	.102	.179	.027	<b>.646</b>	.139	.112	.013	.219	.179	.217	-.144	.652
The textbooks' availability in local bookstores	.104	.167	.189	.072	<b>.645</b>	.021	.132	.061	.052	-.005	-.019	.008	.526
The textbooks' usefulness in enhancing understanding of the modules	.094	.252	.097	.257	<b>.617</b>	.112	.049	.123	-.051	-.059	-.021	.130	.593
The recommended core textbooks overall	.153	.198	.118	.359	<b>.576</b>	.217	.003	.121	-.124	.113	.016	.108	.639
The IT facilities overall	.174	.120	.277	.082	.069	<b>.696</b>	.062	.051	.107	.054	.012	-.029	.639
The learning resources centre overall	.199	.173	.178	.218	.070	<b>.684</b>	.096	.130	-.001	.041	.062	.096	.663
The vending machines overall	.078	.114	.126	.059	.131	<b>.609</b>	.238	.022	.205	.119	.072	.067	.550
The on-campus cafeteria/ canteen facilities	.055	.146	.177	.058	.164	<b>.487</b>	.335	.129	.104	.217	-.029	.096	.520
The recreational facilities overall	.245	-.011	.133	.101	.175	<b>.472</b>	.395	.045	.026	-.021	.293	.124	.603
The availability of parking	.045	.053	.069	-.067	.291	.023	<b>.704</b>	-.027	.121	.018	.056	.150	.636
The security measures overall	.087	.075	.091	.168	.001	.147	<b>.671</b>	.277	.034	.040	.028	.002	.602
The registration procedures	.183	.140	.226	.241	.081	.256	<b>.578</b>	.066	.001	.205	-.070	-.138	.639
The toilet facilities overall	.126	.079	.152	.089	.034	.400	<b>.510</b>	-.018	-.059	.104	.070	.228	.546
The accommodation facilities/ services overall	.195	.139	.294	.105	.104	.360	<b>.493</b>	-.038	.079	.137	.086	.156	.596
The approachability of teaching staff	.321	.203	.154	.173	.080	.077	.109	<b>.716</b>	.197	.099	.081	.005	.790
The friendliness of teaching staff	.344	.197	.127	.192	.078	.051	.096	<b>.697</b>	.192	.123	.083	.101	.783
The concern shown when you have a problem	.470	.114	.030	.152	.195	.109	.074	<b>.551</b>	.126	.181	.090	.039	.676
The teaching ability of staff	.096	.273	.138	.256	.075	.158	.079	.158	<b>.624</b>	.119	.024	.011	.733
The consistency of teaching quality irrespective of the lecturer	.195	.311	.130	.304	.047	.148	.098	.138	<b>.579</b>	.064	.071	.050	.652
The responsiveness of teaching staff to requests	.243	.332	.138	.175	.044	.070	.066	.180	<b>.454</b>	.073	.098	.031	.531
The subject expertise of the staff	.139	.270	.128	.147	.245	.189	-.048	.338	<b>.386</b>	.217	.037	.073	.565
The helpfulness of administrative staff	.155	.199	.051	.052	.130	.144	.141	.176	.091	<b>.754</b>	.118	.045	.750
The helpfulness of technical staff	.215	.288	.081	.191	.078	.123	.105	.067	.055	<b>.613</b>	.235	.043	.644
The usefulness of feedback on your performance	.212	.346	.082	.222	.123	.162	.043	.110	.096	.186	<b>.615</b>	.066	.702
The promptness of feedback on your performance	.208	.353	.122	.212	.169	.042	.098	.131	.105	.171	<b>.607</b>	.037	.695
Class sizes	.169	.060	.333	.066	.128	.112	.111	.070	.092	.045	.067	<b>.694</b>	.690

Eigenvalue	18.853	2.937	1.987	1.949	1.611	1.404	1.139	1.070	.948	.900	.868	.857
Variance	35.006	5.542	3.749	3.677	3.040	2.650	2.149	2.019	1.789	1.699	1.658	1.617
Cumulative variance	35.006	40.548	44.297	47.974	51.014	53.664	55.813	57.831	59.620	61.319	62.957	64.573

*Note:  $h^2$  refers to communality.*

#### ***4.3.1.1 Criteria for Goodness of Fit***

Goodness of fit is evaluated using communalities and total variance explained. According to Hair *et al.*, (2010), variables should generally have communalities of above 0.50 to be retained in the analysis. Field (2005) on the other hand states that an average communality of 0.60 or greater is considered fine. In this study, the average communality is 0.65, with the highest communality reported at 0.79 for the approachability of teaching staff and the lowest communality of 0.49 for the way your time table is organised. Other drivers reported communalities of above 0.50. Since the average is acceptable, therefore, a reasonable proportion of variance in each driver is being indicated. Based on that, all the drivers are retained for further analysis. As stated earlier, the total variance explained for the 12 factors stood at 64.6 per cent and the minimum threshold of total variance explained according to Hair *et al.*, is 60 per cent.

#### ***4.3.1.2 Significance of Factor Loadings***

With regards to the significance of factor loadings, according to Hair *et al.*, (2010), factor loadings of 0.55 and above are significant for a sample of 100 respondents. If the sample size is 350 or greater, factor loadings of 0.30 are considered significant. If on the other hand, practical significance is being adopted as the criteria, factor loadings are assessed in a way that  $\pm 0.30$  to  $\pm 0.40$  are considered to meet the minimal level for interpretation of structure, and loadings of  $\pm 0.50$  or greater are considered to be practically significant (Hair *et al.*, 2010). In this study, the factor loadings are in the region of 0.40 and above and were considered acceptable.

On the issue of cross-loadings, from Table 4.2 it can be observed that seven drivers loaded on two factors. These drivers consisted of competence of staff; the availability of staff; the respect for your feelings, concerns, and opinions; the lecture and tutorial rooms overall; the lectures overall; the toilet facilities overall; and the concern shown when you have a problem. According to Hair *et al.*, (2010), the general principle states that variables that cross-load are usually deleted unless theoretically justified. In addition, the general principle also state that variables should have communality of greater than 0.50 to be retained in the analysis. The author of this study addressed the issue of cross-loading by the reporting the highest factor loading of the each of the seven drivers as their communalities are 0.50 and above and they should be retained for analysis. The drivers in this study are retained as they can be theoretically justified and similar approach has been adopted by many other studies too.

The 12 factors have been named based on the drivers that loaded highly on each factor. In the paragraphs that follow, they are explained in descending order of the variance explained in each factor as presented in Table 4.2.

#### ***4.3.1.3 Interpretation of Results***

##### ***1. Professional Comfortable Environment***

This first factor consists of eight satisfaction drivers made up of the teaching and learning (implicit service). The students want the teaching staff to be professional in delivering their educational services. High loadings were given for drivers that relate to the sense of competence, confidence and professionalism conveyed by the ambience in the tutorials;

the feelings that your best interests are being served; the sense of competence, confidence, and professionalism conveyed by the ambience in the lectures; the feelings that rewards, that is, fair marks or grades are consistent with their efforts. In addition, they want a comfortable university environment; competent staff; availability of staff; and the respect for their feelings, concerns, and opinions.

## **2. *Student Assessments and Learning Experiences***

Students who have high scores on this factor of student assessments and learning experiences expect fairness of assessments and their learning experiences. The students gave high scores to the appropriateness of method of assessment of the coursework and/or examination, the appropriateness of the style of the assessment, and the quantity of assessment, their course workload, the organisation of their time table, and also the level of difficulty of the subject content.

## **3. *Classroom Environment***

These seven drivers are linked to the physical facilities and the facilitating goods provided by the educational institutions. The students who have high scores on this factor want a conducive learning environment and that is why they are concerned about the decoration, the layout, the furnishings, the teaching and learning equipment, such as projectors, screens, whiteboards, the lighting, the level of cleanliness and the lecture and tutorial rooms overall. Students in general spend most of their time in the classrooms and that could be the reasons for students in this study wanting to have a comfortable learning environment.

#### **4.     *Lecture and Tutorial Facilitating Goods***

This factor consists of five drivers linking to supplementary tutorial and lecture materials/ handouts, the tutorials overall, the power point/ slide presentations as well as the lectures overall. Students with high scores on this factor want to make sure that the lecture and tutorial facilities are up to their satisfaction as these will facilitate the learning process.

#### **5.     *Textbooks and Tuition Fees***

Students who have high scores on this factor are concerned with the textbook value for money, the tuition fees, the availability of textbooks in the local bookstores, the usefulness of the textbooks in enhancing the modules, and the recommended core textbooks overall. They are likely to use the textbooks after attending the lectures and tutorials as they know that by doing so can enhance their understanding of the modules. The students are concerned with the cost that they have to incur in and in view of that they want “value for money” in purchasing the textbooks and the tuition fees.

#### **6.     *Student Support Facilities***

The student support facility factor is composed of questions relating to the IT facilities; the learning resources centre overall; the vending machines overall; the on-campus cafeteria/ canteen facilities; and the recreational facilities. These facilities may help to promote student success and enhance their persistence level. The students who have high scores on this factor indicate they need these supporting facilities towards their favourable educational experiences.

### **7.     *Business Procedures***

This seventh factor involves the interaction between the students and the service providers at various offices or departments at the educational institutions. The students have to deal with regards to the parking issues, security office, registration office, accommodation facilities and all these have to be dealt with continuously. The cleanliness is also an issue that students are concerned with as well and, as such; the maintenance department has to provide acceptable level of services to the students.

### **8.     *Relationship with teaching staff***

Students with high scores on this factor expect to have good relationships with the teaching staff. This factor consists of questions relating to the approachability of the teaching staff, friendliness of the teaching staff, and the concern shown when they have a problem. The students want the teaching staff to make themselves available not only in classes but outside classes too by providing some flexible consultation hours.

### **9.     *Knowledgeable and Responsive Faculty***

This ninth factor relates to the teaching ability of the staff, the consistency of teaching quality irrespective of the lecturer, the responsiveness of teaching staff to requests, and the subject expertise of the staff. The students are concerned with the knowledge as well as how the knowledge is being delivered to them and at the same time the process should demonstrate certain acceptable quality level.

#### **10.     *Staff Helpfulness***

The helpfulness of both the technical and the administrative staff is what this factor is associated with. Students who provide high scores on the student support facilities and the business procedures would probably provide high scores for this factor. A high score on this factor would mean that the students expect the technical and the administrative staff to provide good assistance to them to facilitate their learning experiences.

#### **11.     *Feedback***

Obtaining feedback is important as it helps to improve students' learning experiences. This factor relates to the usefulness of feedback on their performance and the promptness of the feedback provided to them. Students with high scores on this factor would have the desire to excel in their studies. They want to know how they perform in their assignments, projects, tests, and so on. The faculty should be sensitive towards their needs and to provide constant feedback.

#### **12.     *Class Sizes***

This 12th factor relates to the class sizes. Students are concerned about the class sizes. A study by Coles (2002) indicates that the level of satisfaction decreases as the class size increases. The most possible explanation here is the faculty is able to give better attention if the class size is not too large to handle and hence, may be able to lead to higher satisfaction.



In summary, the 12 new factors that influence business student satisfaction in the Malaysian private educational environment can be interpreted as professional comfortable environment; student assessment and learning experiences; classroom environment; lecture and tutorial facilitating goods; textbooks and tuition fees; student support facilities; business procedures; relationship with the teaching staff; knowledgeable and responsive faculty; staff helpfulness; feedback; and class sizes. Using Douglas *et al*'s., (2006) service-product bundle earlier showed that the 53 drivers consist of the physical facilities and facilitating goods, and the teaching and learning drivers (explicit and implicit service). The results of the factor analysis provide a more thorough understanding of the dimensions of the drivers.

The earlier model (Douglas *et al.*, 2006) utilised the three elements of physical and facilitating goods, explicit and implicit service to measure student satisfaction. Factor analysis, on the other hand, produces a 12-factor solution of which, when compared to Douglas *et al.*, (2006) model consist of six physical and facilitating goods and six teaching and learning drivers. On examining the 12-factor solution from the 53 drivers indicates clear evidence that the 53 drivers-scale fits into the 12-factor solution relating to and fitting into the factors mentioned above. Adding this analysis to this study showed the contribution this study is making towards measuring student satisfaction, specifically business student satisfaction and thus, contributes to the extant literature on student satisfaction.

The following sections will continue with the examination of the influences of the demographic profiles on the results. A one-way Analysis of Variance (ANOVA) and the independent t-tests are the tests used for the purpose. To perform the analyses, the orthogonal or uncorrelated standardised factor scores (mean 0, standard deviation 1) for each student and factor which have been saved earlier were used.

#### **4.4 Examining the Influences of the Demographic Profiles on the Results**

A one-way ANOVA (Bonferroni method) was conducted to test the relationships between the 12 factor scores of the satisfaction drivers and the demographic profiles such as year of study; programme of study; and the semester grades of the students. As for gender and nationality of the respondents, independent t-tests were adopted.

In this section, the results of the ANOVA tests conducted will be presented followed by the results of the independent t-tests. Next, the summary of the differences for both sets of tests will be discussed.

##### ***4.4.1 ANOVA of the factors and Year of Study***

H1: There are significant differences in the level of satisfaction between year of study and the 12 factors

A five per cent significance level is adopted for the test.

A one-way ANOVA was used to test the differences in the level of satisfaction between year of study and the 12 factors and the results are presented in Table 4.3.

The results showed the following:

- i) Significant differences exist in the level of satisfaction between student support facilities and the year of study,  $F(2, 820) = 5.204$ ,  $p=0.006$ .

Post-hoc comparisons using the Bonferroni method indicated that at 95 per cent confidence interval (CI), significant differences exist between Year 1 and Year 3 students as well as between Year 1 and Year 2 students. Year 1 students indicate that they are more satisfied with the student support facilities as compared to the Year 2 and Year 3 students.

- ii) Significant differences exist in the level of satisfaction between class sizes and the year of study,  $F(2, 820) = 7.270$ ,  $p=0.001$ .

Post-hoc comparisons using the Bonferroni method indicated that at 95 per cent confidence interval (CI), significant differences exist between Year 1 and Year 3 students as well as between Year 2 and Year 3 students. Year 1 and Year 2 students seem to be more satisfied with their class sizes as compared to the Year 3 students.

Table 4.3 ANOVA of the factors and Year of Study

Factors	Descriptive Variables			F Ratio	F Probability
	Year of Study				
	1	2	3		
Professional Comfortable Environment	0.039 1.014	-0.054 1.041	0.023 0.941	0.700	0.497
Student Assessments and Learning Experiences	-0.055 0.992	0.054 1.061	-0.008 0.938	0.823	0.440
Classroom Environment	-0.027 0.966	0.057 1.035	-0.036 0.993	0.749	0.473
Lecture and Tutorial Facilitating Goods	-0.024 1.025	0.027 0.994	-0.007 0.987	0.184	0.832
Textbooks and Tuition Fees	-0.022 1.006	0.001 1.024	0.020 0.972	0.114	0.892
Student Support Facilities	0.166 0.968	-0.056 0.972	-0.094 1.043	5.204	0.006
Business Procedures	-0.037 1.015	-0.028 1.044	0.064 0.937	0.853	0.426
Relationship with teaching staff	0.063 1.017	-0.076 1.042	0.024 0.933	1.433	0.239
Knowledgeable and Responsive Faculty	-0.026 1.025	0.024 1.025	-0.003 0.951	0.172	0.842
Staff Helpfulness	-0.021 1.050	-0.050 1.003	0.0733 0.9467	1.156	0.315
Feedback	0.075 1.007	0.034 0.928	-0.108 1.062	2.488	0.084
Class sizes	-0.125 1.012	-0.062 0.971	0.184 0.998	7.270	0.001

*Note: Values are means with standard deviations in italics*

#### ***4.4.2 ANOVA of the factors and Programme of Study***

H2: There are significant differences in the level of satisfaction between programme of study and the 12 factors

A five per cent significance level is adopted for the test.

A one-way ANOVA was used to test the differences in the level of satisfaction between programme of study and the 12 factors and the results are presented in Table 4.4.

The results showed that significant differences exist in the level of satisfaction between the following:

- i) Classroom environment and the programme of study at  $F(5, 817) = 2.538$ ,  $p = 0.027$ .

Post-hoc comparisons indicate that at 95 per cent confidence interval (CI), significant differences exist between students in the OT programme of study and students from two other programmes, that is AC and IB programmes. Students in the OT programme seem to be more satisfied with the classroom environment as compared to the students in the AC and IB programmes.

- ii) Student support facilities and the programme of study at  $F(5, 817) = 2.276$ ,  $p = 0.045$ .

From the post-hoc comparisons performed, it can be seen that at 95 per cent confidence interval (CI), significant differences exist between students in the OT programme and the students from the BA programme. Students in the OT

reported a higher level of satisfaction with regards to the student support facilities as compared to the BA students.

iii) Business procedures and the programme of study at  $F(5, 817) = 3.328, p = 0.06$ . The post-hoc comparisons conclude that at 95 per cent confidence interval (CI), significant differences exist between BA and IB students as well as AC and IB students. The BA and AC students seem to be more satisfied with regards to the business procedures at their educational institutions as compared to IB students.

iv) Relationship with teaching staff and the programme of study at  $F(5, 817) = 2.733, p = 0.019$ .

Post-hoc comparisons indicated that at 95 per cent confidence interval (CI), significant differences exist between the MK students and the IB students. MK students seem to be more satisfied with the approachability, friendliness and responsiveness of the teaching staff towards their requests as compared to the IB students.

v) Class sizes and the programme of study at  $F(5, 817) = 2.842, p = 0.015$ .

As for post-hoc comparisons, at 95 per cent confidence interval (CI), significant difference exists between students in the FP programme and students in the IB programme. Students in the FP programme are more satisfied with the class sizes as compared to students in the IB programme.

Table 4.4 ANOVA of the factors and Programme of Study

Factors	Descriptive Variables						F Ratio	F Probability
	Programme of study							
	MK	BA	AC	FP	IB	OT		
Professional Comfortable Environment	0.123 <i>1.031</i>	-0.085 <i>0.958</i>	-0.056 <i>0.991</i>	0.084 <i>0.946</i>	-0.068 <i>1.091</i>	0.092 <i>0.996</i>	1.252	0.283
Student Assessments and Learning Experiences	0.053 <i>0.953</i>	0.097 <i>1.037</i>	-0.073 <i>0.997</i>	-0.164 <i>0.910</i>	-0.097 <i>1.041</i>	0.222 <i>1.029</i>	2.204	0.052
Classroom Environment	0.029 <i>0.999</i>	-0.046 <i>0.942</i>	-0.090 <i>0.972</i>	0.084 <i>1.038</i>	-0.119 <i>1.025</i>	0.355 <i>1.067</i>	2.538	0.027
Lecture and Tutorial Facilitating Goods	-0.004 <i>0.973</i>	-0.051 <i>0.969</i>	0.041 <i>0.906</i>	0.078 <i>1.025</i>	-0.064 <i>1.078</i>	0.055 <i>1.177</i>	0.453	0.811
Textbooks and Tuition Fees	-0.047 <i>0.996</i>	-0.050 <i>1.011</i>	0.044 <i>0.974</i>	-0.022 <i>1.018</i>	0.034 <i>0.950</i>	0.150 <i>1.100</i>	0.559	0.732
Student Support Facilities	-0.065 <i>1.038</i>	-0.127 <i>1.059</i>	0.031 <i>0.901</i>	0.015 <i>0.964</i>	0.085 <i>0.963</i>	0.308 <i>1.014</i>	2.276	0.045
Business Procedures	0.060 <i>0.957</i>	0.096 <i>0.986</i>	0.134 <i>0.908</i>	-0.108 <i>0.997</i>	-0.283 <i>1.078</i>	-0.023 <i>1.105</i>	3.328	0.006
Relationship with teaching staff	0.189 <i>0.883</i>	0.087 <i>1.113</i>	-0.046 <i>0.926</i>	-0.116 <i>1.011</i>	-0.191 <i>0.968</i>	-0.037 <i>0.998</i>	2.733	0.019
Knowledgeable and Responsive Faculty	-0.012 <i>0.954</i>	-0.038 <i>0.978</i>	-0.016 <i>1.024</i>	-0.080 <i>1.070</i>	0.041 <i>1.084</i>	0.265 <i>0.785</i>	1.186	0.314
Staff Helpfulness	0.035 <i>1.008</i>	0.029 <i>0.939</i>	-0.007 <i>0.917</i>	-0.132 <i>1.068</i>	0.031 <i>1.004</i>	0.034 <i>1.214</i>	0.545	0.742
Feedback	-0.093 <i>0.954</i>	0.055 <i>1.091</i>	-0.009 <i>0.939</i>	0.142 <i>0.883</i>	-0.056 <i>0.993</i>	-0.112 <i>1.136</i>	1.129	0.343
Class sizes	-0.101 <i>1.017</i>	0.080 <i>0.987</i>	0.009 <i>0.949</i>	0.220 <i>1.017</i>	-0.188 <i>0.989</i>	-0.115 <i>1.034</i>	2.842	0.015

Note: Values are means with standard deviations in italics

Key: MK-Marketing BA-Business Administration AC- Accounting FP-Financial Planning IB- International Business OT-Other

#### ***4.4.3 ANOVA of the factors and Semester Grade***

H3: There are significant differences in the level of satisfaction between semester grade and the 12 factors

A five per cent significance level is adopted for the test.

A one-way ANOVA was used to test the differences in the level of satisfaction between semester grade and the 12 factors and the results are presented in Table 4.5.

The results showed that significant differences exist in the level of satisfaction between the following:

- i) Student support facilities and semester grade at  $F(3, 819) = 3.827, p = 0.010$ .  
Post-hoc comparisons conclude that at 95 per cent confidence interval (CI), significant difference exist between “A” students and “B” students as well as “A” students and “C” students. “A” students seem to be more satisfied as compared to the “B” and “C” students with regards to the student support facilities.
- ii) Class sizes and semester grade at  $F(3, 819) = 2.797, p = 0.039$ .  
Post-hoc comparison concludes that at 95 per cent confidence intervals (CI), significant differences exist between “B” students and “D” students with regards to class sizes. “B” students seem to be more satisfied with the class sizes as compared to the “D” students.



Table 4.5 ANOVA of the factors and Semester Grade

Factors	Descriptive Variables				F Ratio	F Probability
	Semester Grade					
	A	B	C	D		
Professional Comfortable Environment	0.089 1.074	-0.024 1.029	-0.066 0.947	0.143 0.835	1.297	0.274
Student Assessments and Learning Experiences	-0.025 1.341	0.026 1.241	0.030 1.001	-0.188 0.820	0.979	0.402
Classroom Environment	0.072 1.065	0.020 0.977	-0.060 1.005	-0.050 0.941	0.679	0.565
Lecture and Tutorial Facilitating Goods	-0.036 1.026	0.094 0.977	-0.043 1.037	-0.234 0.870	2.474	0.060
Textbooks and Tuition Fees	0.109 0.970	-0.040 1.030	-0.038 1.002	0.090 0.903	1.102	0.347
Student Support Facilities	0.028 1.062	-0.080 1.030	-0.060 0.931	0.144 0.872	3.827	0.010
Business Procedures	-0.102 1.074	0.040 0.978	0.005 0.993	0.032 0.957	0.757	0.519
Relationship with teaching staff	-0.032 1.026	0.067 0.961	-0.020 1.069	-0.189 0.842	1.404	0.240
Knowledgeable and Responsive Faculty	-0.032 1.103	0.053 0.970	-0.052 1.019	-0.008 0.815	0.602	0.614
Staff Helpfulness	-0.010 1.155	-0.025 1.015	0.032 0.903	0.250 0.833	2.123	0.096
Feedback	0.010 1.056	-0.013 0.951	-0.017 1.078	-0.016 0.779	0.821	0.482
Class Sizes	-0.013 1.046	0.077 1.018	-0.017 0.970	-0.030 0.856	2.797	0.039

*Note: Values are means with standard deviations in italics*

#### ***4.4.4 Independent t-tests of the factors and Gender***

H4: There are significant differences in the level of satisfaction between gender and the 12 factors

A five per cent significance level is adopted for the test.

An independent t-test was conducted to test the differences in the level of satisfaction between gender and the 12 factors and the results are presented in Table 4.6.

The results showed that:

- i) Significant differences exist in the level of satisfaction between textbooks and tuition fees and gender at  $t(821) = -0.078$ ,  $p = 0.003$ . Male students seem to be more satisfied as compared to the female students.

#### ***4.4.5 Independent t-tests of the factors and Nationality***

H5: There are significant differences in the level of satisfaction between nationality and the 12 factors

A five per cent significance level is adopted for the test.

An independent t-test was conducted to test the differences in the level of satisfaction between nationality and the 12 factors and the results are presented in Table 4.7.

The results showed that:

- ii) Significant differences exist in the level of satisfaction between textbooks and tuition fees and nationality at  $t(821) = -1.028$ ,  $p = 0.000$ . International students seem to be more satisfied as compared to the local students.

Table 4.6 Independent t-tests of the factors and Gender

Factors	Descriptive Variables		F Ratio	F Probability	t
	Gender				
	Female	Male			
Professional Comfortable Environment	-0.039 <i>0.990</i>	0.039 <i>1.010</i>	0.031	0.861	-1.108
Student Assessments and Learning Experiences	-0.020 <i>1.025</i>	0.020 <i>0.975</i>	0.995	0.319	-0.563
Classroom Environment	-0.060 <i>1.007</i>	0.060 <i>0.991</i>	0.124	0.725	-1.731
Lecture and Tutorial Facilitating Goods	-0.099 <i>1.019</i>	0.099 <i>0.971</i>	0.637	0.425	-2.861
Textbooks and Tuition Fees	-0.003 <i>0.914</i>	0.003 <i>1.081</i>	8.822	0.003	-0.078
Student Support Facilities	-0.006 <i>1.013</i>	0.006 <i>0.988</i>	0.565	0.452	-0.176
Business Procedures	0.016 <i>0.999</i>	-0.016 <i>1.002</i>	0.299	0.584	0.461
Relationship with teaching staff	-0.061 <i>1.023</i>	0.061 <i>0.974</i>	0.582	0.446	-1.756
Knowledgeable and Responsive Faculty	-0.063 <i>1.008</i>	0.063 <i>0.989</i>	0.146	0.702	-1.794
Staff Helpfulness	-0.061 <i>0.972</i>	0.062 <i>1.025</i>	1.740	0.187	-1.768
Feedback	0.004 <i>0.973</i>	-0.004 <i>1.027</i>	0.151	0.698	0.104
Class sizes	0.026 <i>1.022</i>	-0.026 <i>0.978</i>	0.019	0.891	0.748

*Note: Values are means with standard deviations in italics*

Table 4.7 Independent t-tests of the factors and Nationality

Factors	Descriptive Variable		F Ratio	F Probability	t
	Nationality				
	Local	International			
Professional Comfortable Environment	-0.001 0.993	0.003 1.019	0.637	0.425	-0.049
Student Assessments and Learning Experiences	0.017 1.021	-0.040 0.950	1.789	0.181	0.755
Classroom Environment	-0.073 0.984	0.167 1.019	0.197	0.657	-3.182
Lecture and Tutorial Facilitating Goods	0.000 0.993	-0.000 1.017	0.250	0.617	0.008
Textbooks and Tuition Fees	-0.026 0.920	0.060 1.164	16.275	0.000	-1.028
Student Support Facilities	-0.002 0.987	0.005 1.031	0.515	0.473	-0.100
Business Procedures	-0.088 0.986	0.202 1.004	0.102	0.749	-3.849
Relationship with teaching staff	0.037 0.968	-0.086 1.067	0.667	0.414	1.625
Knowledgeable and Responsive Faculty	-0.072 1.021	0.167 0.932	0.440	0.507	-3.168
Staff Helpfulness	-0.048 1.023	0.110 0.937	3.755	0.053	-2.075
Feedback	0.022 0.956	-0.051 1.096	3.435	0.064	0.968
Class Sizes	-0.035 0.976	0.082 1.051	1.765	0.184	-1.547

*Note: Values are means with standard deviations in italics*

#### 4.4.6 Summary of Differences (ANOVA)

Thirty-six ANOVA tests have been conducted between the 12 factors of the satisfaction drivers and the demographic variables of year of study, programme of study and semester grade. From the 36 tests, only 9 tests seem to be significant and are presented in Table 4.9 as follows:

Table 4.8 Summary of ANOVA Results

Satisfaction drivers (Factors)	Descriptive Variables	Sig. Differences( at five per cent significance level)
Student Support Facilities	Year of Study	Y1>Y2
Class sizes		Y1 >Y3
Classroom Environment	Programme of Study	Y1>Y3
Student Support Facilities		Y2>Y3
Business Procedures		OT>AC
Relationship with teaching staff		OT>IB
Class sizes		OT>IB
Student Support Facilities	Semester Grade	BA>IB
		AC>IB
Class sizes		MK>IB
		FP>IB
Student Support Facilities	Semester Grade	A>B
		A>C
Class sizes		B>D

The results reported that students are more concerned with factors such as student support facilities, class sizes, classroom environment, business procedures, and relationship with the teaching staff as compared to the other factors towards their educational experiences. From these two factors, that is, student support facilities and class sizes are prominent and are significant with the three demographic profiles of year of study, programme of

study, and semester grade. Student support facilities consist of the IT facilities, the learning resources centre overall, the vending machines overall, the on-campus cafeteria/canteen facilities and the recreational facilities. Many studies reported the need for these support facilities in creating conducive learning environment to the students in their findings, as such; they confirm the results of this study.

Joseph and Joseph (1997) find the student support facilities factor one of the determinants of service quality in education, which have been agreed by Ford *et al.*, (1999) as they report similar findings. Mai (2005) also produce the same findings and among the drivers, the IT facilities seem to be concerned by the students. Shah and Nair (2011) conduct three separate studies at three different institutions in two countries, two in Australia and one in the UK and they discover that these facilities which they classify as the learning infrastructure are among their five themes that recur in their three studies.

The findings of Douglas *et al.*, (2006) also show the importance of the IT facilities to the students but the other drivers such as vending machines, on-campus catering facilities, and the recreational facilities do not seem to be high on the students' preferences. Price *et al.*, (2003) also discuss the impact of the facilities on the students in their studies. As for the class sizes, Cuseo (2007) indicates that class sizes have impact on student satisfaction. Coles (2002) discovers that student satisfaction decreases when class sizes are larger in the students' earlier cohorts as well as when the students are taking the compulsory core modules rather than the modules that are optional. Another factor, faculty contacts have received wide attention in student satisfaction studies. Elliot and

Shin (2002) find this factor to be directly impacting student satisfaction with the university performance. Studies by (Douglas *et al.*, 2006; and Elliot and Healy 2001) also report similar findings.

Students also want educators to be approachable and accessible to them and to show concern to their needs. According to Kuh *et al.*, (2005), relationships between students and the teaching staff are important towards student success at the educational institutions. They further state that approachability and accessibility of the teaching staff inside and outside the class are highly required by the students for effective learning to take place. Classroom environment and business procedures are the other two factors that the results revealed to be significant. Students want the classroom environment to be conducive for learning as the drivers of the factor include the decoration, layout, furnishings, teaching and learning equipment, lighting, level and cleanliness and the lecture and tutorial rooms overall. As stated earlier by Oldfield and Baron (2000) and Wakefield and Blodgett (1994), students spend a lot of time within the classroom environment, as such; they would prefer an environment which is comfortable and conducive for learning. Another significant factor in this study is the business procedures, which involve the students' interaction with the various business offices at the educational institutions. Some measures have to be taken to ensure that students are happy and satisfied with the interactions as those will lead to their forming of their perceptions of the respective educational institutions.

Further observation on the results of the ANOVA tests showed that in this study, year 1 students are more satisfied with the student support facilities and the class sizes as compared to the year 2 and year 3 students. Nasser *et al.*, (2008) conduct a study on student satisfaction in Lebanese educational institutions and find that there is an inverse relationship between the class levels and the satisfaction levels; that is, the higher the levels, the lower the ratings of the satisfaction levels. The situation is similar in this study too. Corts *et al.*, (2000) conclude in their study that there is no significant difference between junior and senior students' perceptions of satisfaction. Hill (1995) finds that students' expectations are stable over time, which suggests that they were probably formed prior to arrival at the university. However, students who have been studying for longer perceived there was a reduction in their quality experience indicating that this was less stable.

Munteanu *et al.*, (2010) conduct a study with regards to the influence of the programme of study on student satisfaction factors and find that differences exist among specialisations of study and the most satisfied students are those in the business information systems and marketing. The students in the commerce-tourism and also the international business programme seem to be less satisfied. In this study, international business students seem to be less satisfied too. This situation provides some indication to the educational institutions, which will be addressed by this study in the subsequent chapter.



This study also reported the influence of semester grade on the level of student satisfaction with regards to the student support facilities and the class sizes. Better performing students are more satisfied with the student support facilities and class sizes than the poor performers. Wilson's (2002) study shows that there is no statistical difference between student performance and the class sizes. Bean and Bradley (1986) also report similar findings. Liu and Jung (1980) observe some moderate relationships in their study. Lavin (1965) as well as Centra and Rock (1983) discover a significant relationship between grades and student satisfaction. Aitken (1982) concludes that academic performance is one of the factors that can determine satisfaction. Pike (1991) discovers an inverse relationship between satisfaction and the grades. Another related observation is by Oldfield and Baron (2000) who confirm that the mean score of the final year students was lower than those of the first year thus suggesting that as students become more experienced in the higher educational settings, they seem to be more critical in their perceptions of the service quality.

#### ***4.4.7 Summary of Differences (independent t-tests)***

Twenty-four independent t-tests have been conducted between the 12 factors of the satisfaction drivers and the demographic profiles of gender and nationality respectively. From the 24 tests conducted, only one test is significant for each profile of gender and nationality and the results are presented in Table 4.9.

Table 4.9 Summary of independent t-tests results

Satisfaction drivers (Factors)	Descriptive Variables	Sig. Differences (at five per cent significance level)
Textbooks and Tuition Fees	Gender	M>F
Textbooks and Tuition Fees	Nationality	I>L

The results showed that the only factor among the other factors which is significant is textbooks and tuition fees. The tuition-based model has been significant in many educational institutions. According to Rolfe (2002), the introduction of the tuition fees may affect the students from being free recipients to “customers”. This has been discussed in chapter two earlier. When students feel that they are customers, they may expect “value for money” (Narasimhan, 2001; and Watson, 2003). In view of that, their satisfaction should be important to the educational institutions (Thomas and Galambos, 2004). Students also want value for their investments in purchasing the textbooks, availability in the local bookstores, as well as usefulness in enhancing the modules. The study of Douglas *et al*’s., (2006) reported similar findings of students’ concerns of these drivers.

With regards to gender, the results of this study reported that males are more satisfied than the females on the factor. Many studies on gender and satisfaction produce mixed results. Soutar and Mc Neil’s (1996) study indicates that there is a significant relationship between gender and satisfaction. With regards to the satisfaction levels between males and females, studies by Renzi *et al.*, (1993) and Umbach and Porter (2002) indicate that males are more satisfied than females and the finding is similar in this study too.

According to Brody and Hall (1993), Dittmar *et al.*, (2004), Mattilla *et al.*, (2003), gender may impact on perceptions of interaction quality, physical environment quality, outcome quality and system quality due to gender role socialization, decoding ability, differences in information processing, traits and the importance placed on core or peripheral services. Laroche *et al.*, (2000) suggest that females tend to rely more heavily on the service environment to make service evaluations. Males have been found to be outcome-focused in valuing efficiency more than personal interaction compared to females (Mattilla *et al.*, 2003). Iacobucci and Ostrom (1993) discover gender differences exist with regards to the importance placed on the core and peripheral services.

As for nationality, the results of this study showed that international students are more satisfied than the local students on the textbook and tuition fees issues. Arambewela and Hall's (2009) study on international students' satisfaction indicates that the importance of the quality factors related to both educational and non-educational services varies among nationality groups. Their study discovered the variations of the level of satisfaction with university services, and students from China and Indonesia seem to be more satisfied with the services as compared to the Indian or Thai students. Their study also highlights the importance of considering the diversity of cultures, language and values in determining the level of student satisfaction. Ismail's (2008) study indicates that the international students' choice satisfaction resulted from satisfaction with the information required with regards to the college attributes. The results of her study show that international students are satisfied with the information that they acquired from the college websites with regards to the college attributes. Yelena's (2002) study on

international student satisfaction states that the quality of teaching is positively related to recommending. The results also show that student satisfaction mediates the relationships between quality of learning, library services and recommending.

In summary, the results of the ANOVA tests revealed five factors to be significant between student support facilities, class sizes, classroom environment, business procedures, and relationship with teaching staff and the demographic profiles of year of study, programme of study, and the semester grade. The results of the independent t-test showed that only the textbooks and tuition fees factor seems to be significant with gender and nationality. The implications of these results on business student satisfaction in the Malaysian private educational environment will be discussed in the final chapter of this thesis.

The following section will present the final stage of the analysis.

#### **4.5 Identification of areas of service priority towards better allocation of resources**

The final stage of the analysis involves conducting “quadrant analysis”. As mentioned in the methodology section earlier, the quadrant analysis is a tool used to assist the service providers in allocating their resources in a more efficient and effective manner. This could help the service providers to become competitive. Martilla and James (1977) were the pioneers to apply this analysis, better known as importance-performance analysis to the elements of a marketing programme and according to them is a very useful technique

towards developing marketing strategies. Joseph and Joseph (1997) adopted this analysis in higher education and he utilised a sample of final year students at a New Zealand university. O'Neil and Palmer (2004) use this analysis on a sample from Australia and Douglas *et al.*, (2006) apply this analysis in their studies using samples drawn from the UK. Ford *et al.*, (1999), on the other hand, conducted cross-cultural comparisons between samples from New Zealand and the USA. Many other studies adopted this analysis in their studies as well.

The quadrant analysis produces a grid matrix and the matrix is split into four quadrants, each presenting an appropriate strategy to various aspects of the service. The analysis enables the determination of whether aspects of a particular service provision are actually the aspects that the respondents perceived as being important. The management must then decide where the matrix should be split and eventually made the distinction between the quadrants. Martilla and James (1977) suggest that the analysis is a matter of judgment rather than an absolute measure. Most studies use “mean” values across each of the scales for the positioning of their crosshairs and this study has decided to employ the same approach of using the mean values of the satisfaction and importance elements to produce the grid.

To plot the ratings of the importance and satisfaction drivers on the grids requires the computation of the grand means of the drivers and to determine the point of the crosshairs of the axes. In this study the mean scores were 4.198 for the importance drivers and 3.258 for the satisfaction drivers. Please refer to Appendix 4.1 for the

summary of the means of the importance and satisfaction drivers. Eleven quadrant analyses have been conducted based on the importance and satisfaction ratings and the results are plotted on the grids in the following subsections.

#### 4.5.1 Results of the Quadrant Analyses (Importance-Satisfaction grids)

Figure 4.8(a) Importance-Satisfaction Grid (Professional Comfortable Environment)



Figure 4.8(b) Importance-Satisfaction grid (Student Assessments and Learning Experiences)



Figure 4.8(c) Importance-Satisfaction grid (Classroom Environment)





Figure 4.8(d) Importance-Satisfaction grid (Lecture and Tutorial Facilitating Goods)



Figure 4.8(e) Importance-Satisfaction grid (Textbooks and Tuition Fees)

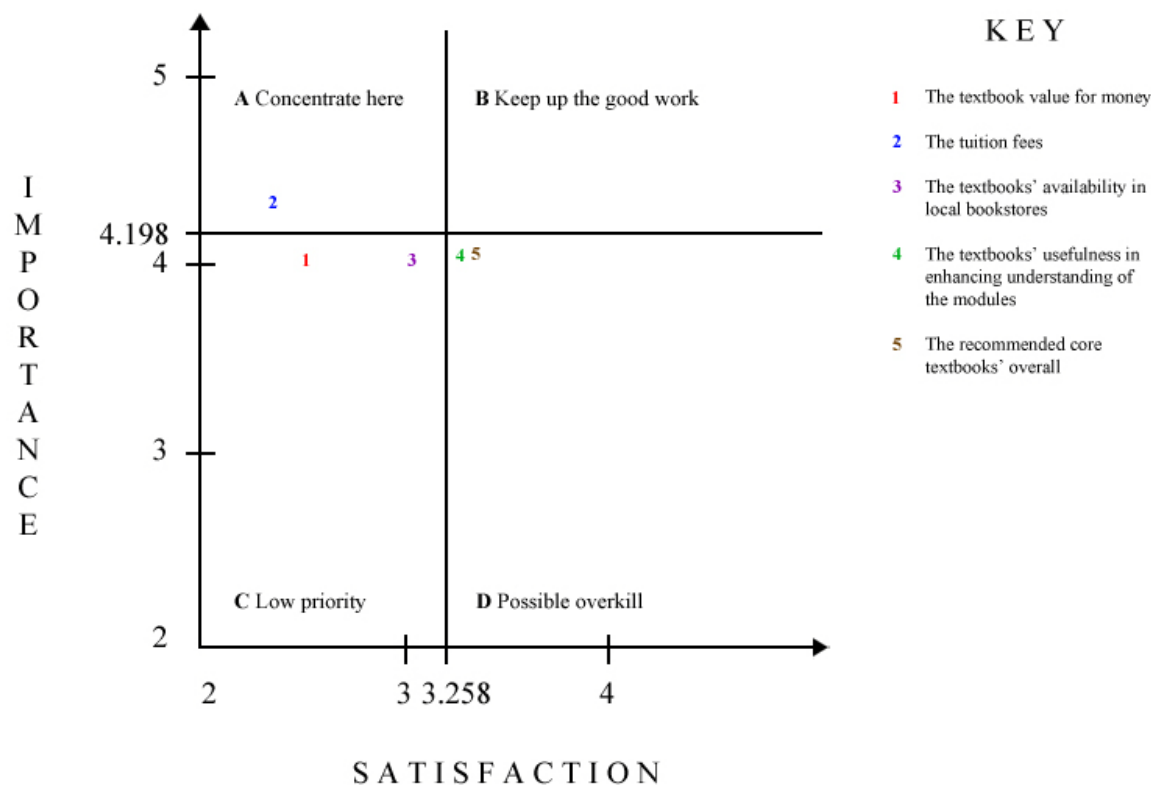


Figure 4.8(f) Importance-Satisfaction grid (Student Support Facilities)



Figure 4.8(g) Importance-Satisfaction grid (Business Procedures)



Figure 4.8(h) Importance-Satisfaction grid (Relationship with teaching staff)

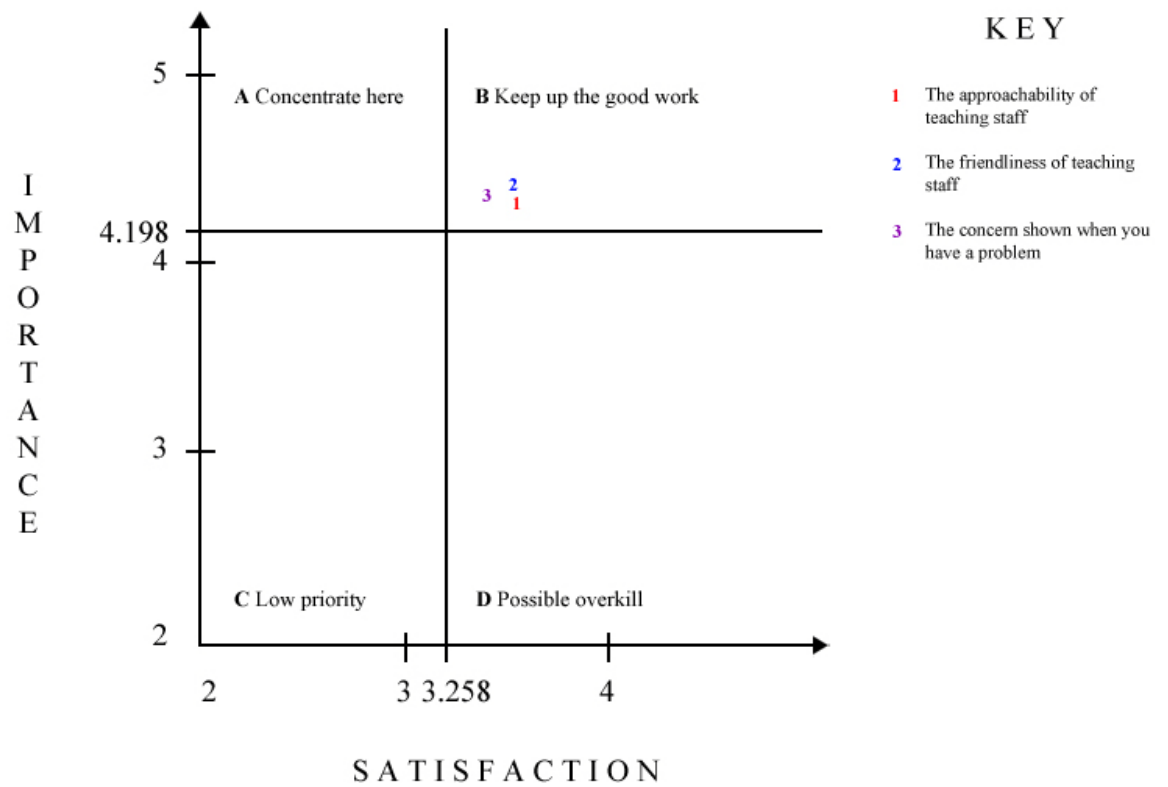


Figure 4.8(i) Importance-Satisfaction grid (Knowledgeable and Responsive Faculty)

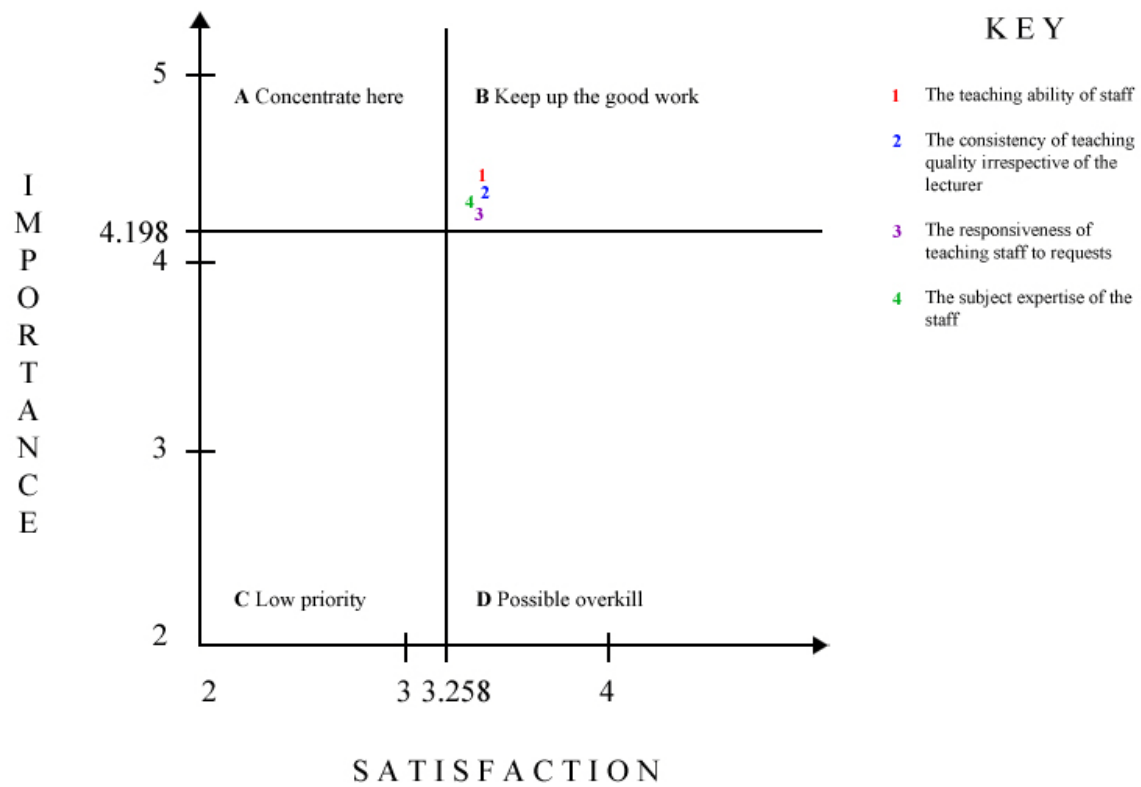


Figure 4.8(j) Importance-Satisfaction grid (Staff Helpfulness)

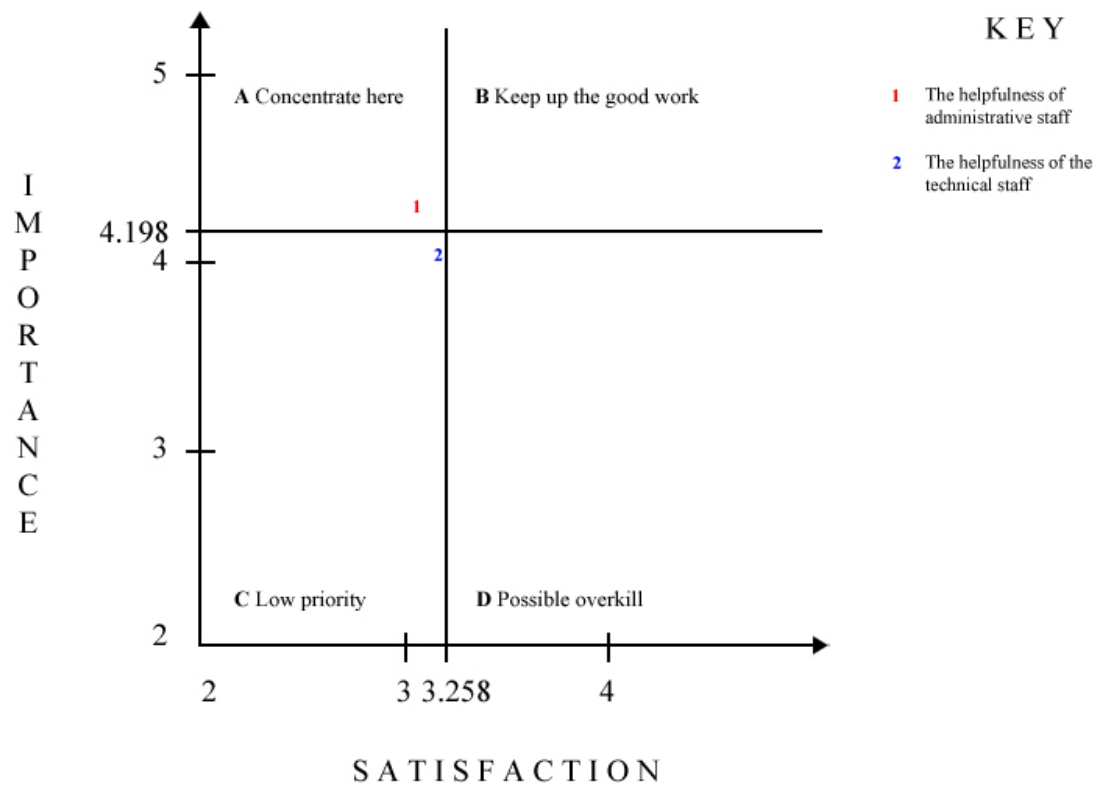


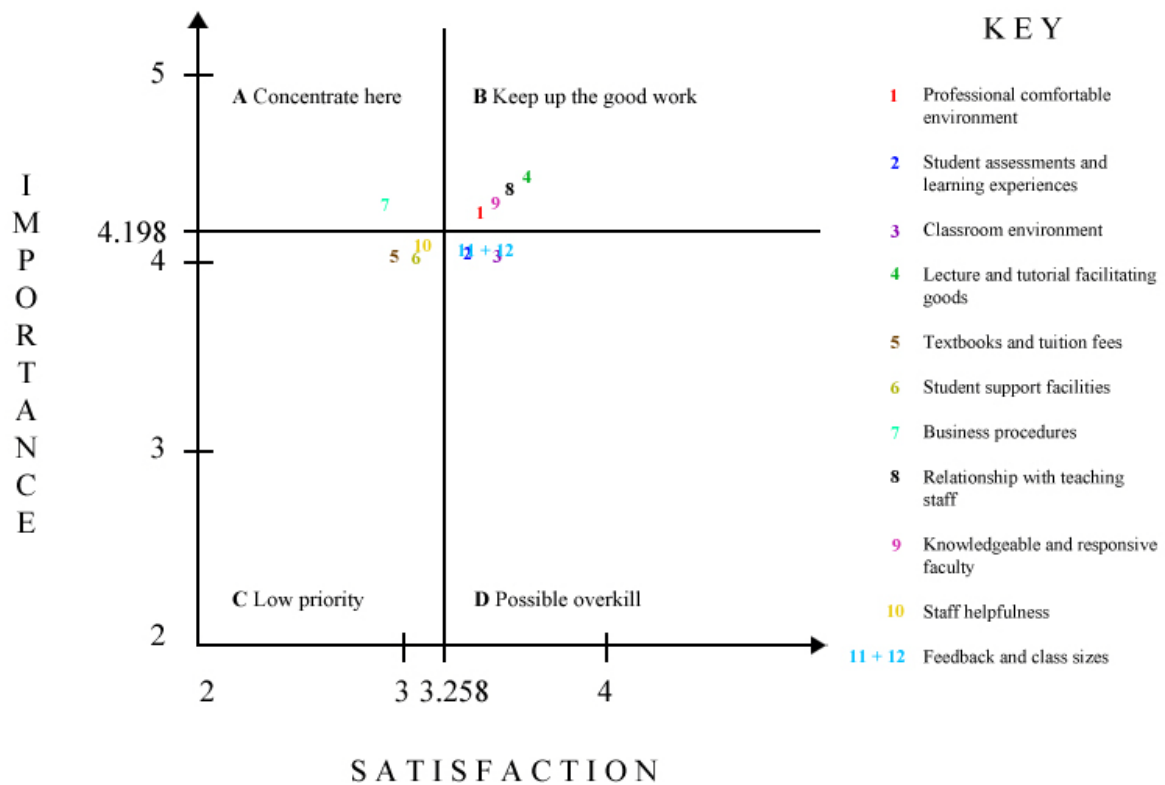
Figure 4.8(k) Importance-Satisfaction grid (Feedback and Class Sizes)





The results of this study's importance-performance grids (quadrant analysis) can be summarised in Figure 4.9.

Figure 4.9 Summary of the Importance-Satisfaction grids (Quadrant Analysis)



#### ***4.5.2 Summary of the Quadrant Analysis***

The results as illustrated in Figure 4.9 revealed that educational institutions, specifically the business schools, have to concentrate on the factor “Business procedures” as this factor falls in the quadrant which indicates high in importance and low in satisfaction (Quadrant A), as such, considerable efforts are required. Four factors seem to be performing well above average as they fall in the quadrant which indicates high for both satisfaction and importance (Quadrant B). The factors comprise professional comfortable environment; lecture and tutorial facilitating goods; relationship with teaching staff; and knowledgeable and responsive faculty. Three factors fall in the quadrant which represents low for both importance and satisfaction (Quadrant C) and they comprise textbooks and tuition fees; student support facilities; and staff helpfulness. Four factors, on the other hand fall in the last quadrant (Quadrant D) which indicates high for satisfaction and low in importance. The factors of student assessments and learning experiences, classroom environment, feedback, and class sizes fall in this quadrant. The results showed that the business schools in the Malaysian private educational environment are performing above average only on the four factors in the “B” quadrant. The other eight factors require further attention and have to be addressed accordingly, as such; the implications will be discussed in the conclusion chapter.

## **4.6 Chapter Summary**

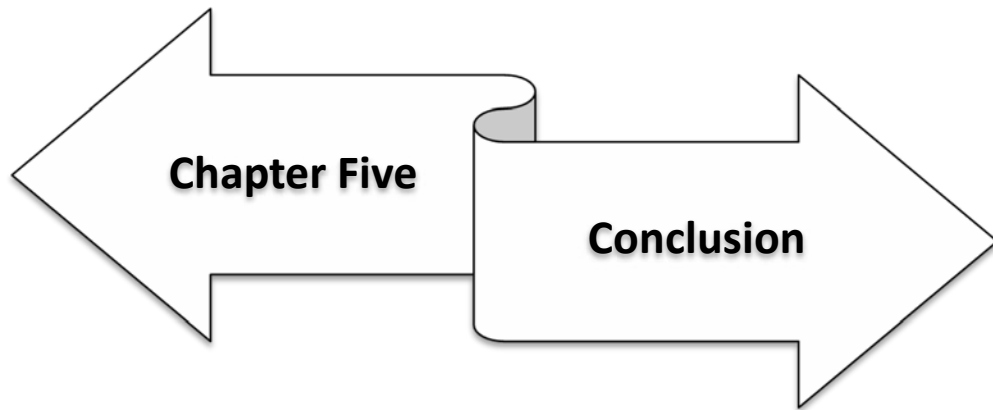
This chapter commenced by presenting the profiles of the 823 respondents of this study. The discussion then continued with the reporting of the ranking of the means of both the 53 satisfaction and importance drivers. The results of the ranking for both the satisfaction and importance drivers showed that students are more concerned and placed more importance on the physical facilities and facilitating goods followed by the teaching and learning drivers. The lowest ranking scores were also observed with regards to the other physical facilities and facilitating goods for both the satisfaction and importance drivers.

The results of the identification of the underlying dimensions of the satisfaction drivers revealed that a 12-factor solution has been adopted after several trial rotations. The factors were then labelled accordingly after evaluating the factor loadings. With the factor scores, the next stage was to examine the influence the demographic variables such as year of study, programme of study, semester grade, gender and nationality have on the results. ANOVA tests and independent t-tests conducted showed that from a total of 60 tests conducted, only eleven tests have been significant with six factors dominant. The six factors are student support facilities, class sizes, faculty support, classroom environment, business procedures and textbooks and tuition fees.

The next analysis was to identify the areas of service priority towards better allocation of resources of the business schools. Eleven quadrant analyses were presented by plotting the means of the satisfaction and the importance drivers. The results showed one factor in quadrant A (concentrate here), four factors in quadrant B (Keep up the good work),

three factors in quadrant C (low priority) and four factors in quadrant D (possible overkill).

The implications of the results will be discussed in more detail in the final chapter. The conclusion of the study, contributions and the possibilities of future studies on student satisfaction will also be addressed in the final chapter.



## **5.0 Introduction**

This final chapter commences with an overview of the study. Explanation of the topic area, what the research sought to discover, research design, as well as research boundaries will be highlighted again. The findings will be reported thereafter addressing the implications of the study. This chapter will also provide the contributions of this study followed by the identification of some of the shortcomings of the study and the avenues for future research.

### **5.1 Overview**

This thesis has examined business student's satisfaction in the Malaysian private educational environment. As the higher education sector is becoming an increasingly competitive market, understanding student satisfaction has become very important. De Shields *et al.*, (2005) indicate that as a result of that competitiveness, the education sector has shifted its focus to being more market-oriented. Students' opinions, perceptions and suggestions are valuable as they "co-produce" educational services. As stated by Cooper (2007), educational success depends on the efforts of the students as well as the educational providers.

The main aim of this study is to identify and evaluate the drivers that influence business student satisfaction in the Malaysian private educational environment. More specifically, the research objectives are to:

- i) review the literature in the area of student satisfaction to help identify the drivers of student satisfaction (discussed in the literature chapter);

- ii) measure the influence that each driver has on business student satisfaction and the importance of each driver to students (addressed in the results chapter);
- iii) identify the underlying dimensions of the satisfaction drivers that influence business student satisfaction (addressed in the results chapter);
- iv) evaluate the influence of factors such as gender, year of study, programme of study, semester grade, and nationality have on the results (addressed in the results chapter);
- v) identify the areas of service priority towards better allocation of resources (discussed in the results chapter); and
- vi) discuss the practical implications of the study (elaborated in the conclusion chapter).

This study adopted a positivist approach whereby 1,200 questionnaires were distributed to undergraduate business students at four private educational institutions in Malaysia. The choice of the institutions was due to their strategic location to the target population as well as their accessibility. Three hundred questionnaires were distributed at each institution as the population of the undergraduate business students at the institutions range from 1,000 to 2,500 students. As stated in the methodology chapter, stratified random sampling was adopted as this method has been found to be suitable for this study.

Engaging with the literature commenced with the discussion of the role of students in the educational institutions. Even though this is not of the objectives of the study, evaluating

business student satisfaction indicates that the feedback from the students is important for this study. Based on that, the “student-as-customer” concept has been examined as it has received wide attention especially with the current tuition-based approach adopted by many educational institutions. Another important point to consider is the one stated by Eagle and Brennan (2007) whereby they propose that the adoption of the “student-as-customer” concept should ensure that it will lead to retaining the positive aspects of promoting the legitimate interests of the students instead of the negative ones.

The literature on student satisfaction showed that it is a complex and multi-dimensional concept (Navarro *et al.*, 2005 a, b; Richardson, 2005). Many definitions of student satisfaction have been provided. What can be concluded and observed is that students do evaluate the services that are delivered to them. Lovelock *et al.*, (2007) suggest that education involves mental-stimulus processing which means that students evaluate the manner in which services are provided and delivered to them. The discussion in this thesis on student satisfaction will be linked to the service quality issues.

As stated by Wiers-Jenssen *et al.*, (2002), evaluating student satisfaction creates a way for universities to focus directly on quality development issues so as to ensure that the educational standards are high. In this thesis, the literature on service quality in general, service quality in higher education, and service quality and satisfaction is reviewed. The review suggests that with the current competitive educational environment, students have high expectations on the level of service quality provided to them. They want more choices, they are very demanding and they want “value for their money”. Educational



institutions, therefore, need to provide and to continuously monitor their quality services in order to achieve student satisfaction and profitability.

This study further reviewed and evaluated the service quality models as they are used to measure student satisfaction. The most widely used model, SERVQUAL model, was evaluated followed by SERVPERF model. The strengths, weaknesses as well as criticisms were examined. Other models including the service-product bundle model were examined too. This part of the review also discovered that despite the criticisms, many studies throughout the world, including Malaysia, are still using the SERVQUAL and other models to measure student satisfaction.

As a result of the evaluation of the service quality models, service-product bundle model by Douglas *et al.*, (2006) has been adopted and extended in this study to examine business student satisfaction in the Malaysian private educational environment. The model has been found to be suitable and comprehensive as compared to SERVQUAL and SERVPERF models as it contains a “bundle” in which the elements are inseparable. The “bundle” consists of the physical and facilitating goods, the sensual service provided (the explicit service, and the psychological service (the implicit service). SERVQUAL and SERVPERF models place more emphasis on the teaching and learning elements as compared to the physical facilities and facilitating goods. The strengths and limitations of this model were also addressed in the literature section. Engaging with the literature also suggests the usefulness of the quadrant analysis towards identifying the strategic alternatives for the educational institutions. The importance-satisfaction grids or the

quadrant analysis plotted showed that the business schools and educational institutions in general still have to improve in their strategies towards understanding student satisfaction and to be more competitive in the future.

## **5.2 Empirical Findings**

Towards measuring the influence that each driver has on business student satisfaction and the importance of each driver to the students, the empirical findings suggest that students are more concerned and placed more importance on the drivers that are related to the physical and facilitating goods, followed by the teaching and learning drivers or the explicit and the implicit services. Among the highest scores observed were given to lighting and the power point/ slide presentations followed by the approachability of teaching staff, the friendliness of the teaching staff and thereafter with the supplementary lecture materials/ handouts and others. As for the importance drivers, among the highest scores were observed given to the drivers such as the lectures overall, the teaching and learning equipment, (for example, projectors, screens, and whiteboard), the tutorial overall, the teaching ability of the staff and the others. The students gave the lowest scoring to the physical facilities and facilitating goods for both the satisfaction and importance drivers. The specific drivers that received the lowest scores of the satisfaction drivers are the tuition fees, the availability of parking, and the textbook value for money. On the other hand, the lowest scores given to the importance drivers were the decoration; the vending machines overall, and the layout.

The empirical investigation continued with the identification of the underlying dimensions of the satisfaction drivers. Factor analysis in the form of principal component analysis with Varimax rotation as the method of factor extraction was used to conduct the test. Fifty-three satisfaction drivers were loaded for the test. Using latent root criterion resulted in an eight-factor solution. After several trial rotations ranging from five to 13 factors, a 12-factor solution which explained a 64.6% total variation seems to give the best representation of the underlying dimensions of the satisfaction drivers. The factors were then labelled after examining the factor loadings. The 12 factors are labelled as professional comfortable environment (eight drivers); student assessments and learning experiences (six drivers); classroom environment (seven drivers); lecture and tutorial facilitating goods (five drivers); textbooks and tuition fees (five drivers); student support facilities (five drivers); business procedures (five drivers); relationship with teaching staff (five drivers); knowledgeable and responsive faculty (five drivers); staff helpfulness (two drivers); feedback (two drivers); and class sizes (one driver).

The factors' scores derived from the above analysis were saved and used to conduct the subsequent tests of one-way analysis of variance (ANOVA) and the independent t-tests. ANOVA was conducted to examine the relationships between the 12 factors and the demographic profiles of year of study, programme of study, and the semester grade. The findings indicate that from the 36 tests conducted only nine tests were significant. Five factors were found to be significant within the three profiles and they are the student support facilities, class sizes, classroom environment, business procedures, and the relationship with teaching staff. Student support facilities and class sizes are the two

factors that are dominant and significant with all the three demographic profiles. Year one students seem to be more satisfied than the year two and year three students within the two factors. As for the programme of study, IB students seem to be less satisfied with the five factors. With regards to the semester grade, “A” grade students are more satisfied with the student support facilities and as for the class sizes, “B” grade students seem to be more satisfied than the “D” grade students.

The independent t-tests were conducted to test for differences between the 12 factors and gender and nationality. From the 24 tests conducted; a total of only two tests, one is for gender and the other one for nationality have been reported to be significant. Textbooks and tuitions fees seem to be the only dominant factor in both sets of tests. The male students are more satisfied than the female students and the international students are more satisfied than the local students with regards to the factor.

The final stage of the data analysis involves conducting quadrant analysis which resulted in the plotting of the importance-satisfaction grids. Eleven grids were presented and the findings showed one factor in quadrant A, which means the educational institutions have to concentrate on the factor business procedures as it is low in satisfaction and high in importance. Quadrant B, which means that the educational institutions are adopting appropriate strategies and which indicates high for both satisfaction and importance drivers, shows four factors comprising professional comfortable environment; lecture and tutorial facilitating goods; relationship with teaching staff; and knowledgeable and responsive faculty. Quadrant C, which is labelled as low priority indicates low for

satisfaction and importance, contained three factors in this quadrant consisting of textbooks and tuition fees; student support facilities; and staff helpfulness. The remaining four factors, student assessments and learning experiences, classroom environment, feedback, and class sizes fall in quadrant D which means the drivers are low in importance and high in satisfaction. At this juncture, the analyses suggest that eight factors which fall in quadrants A, C, and D require attention by the educational institutions towards enhancing their strategic alternatives. The most immediate attention needs to be focused on the factor found in quadrant A.

The factual conclusions discussed can be linked back to the conceptual framework presented in the methodology chapter earlier. From the framework, it can be observed that the study hopes to examine business student satisfaction in the Malaysian private educational environment. Towards achieving the aim and the objectives of this study, the service-product bundle model was adopted and extended as the model has been found to be comprehensive and suitable for the education industry. The outcome from the identification of the underlying dimensions, however, showed that 12 factors from the 53 drivers are suitable towards measuring business student satisfaction in the Malaysian private educational environment. This study also observed the influence that the demographic profiles have on the results and six dominant factors were found to be significant and need to be addressed by the educational institutions. The quadrant analyses further add towards better allocation of the resources of the business schools in order to be competitive. Eight factors require attention by the educational institutions. The summary of the empirical findings of this study is presented in Table 5.1.

Table 5.1 Summary of the Empirical Findings

Objectives	Findings
Measure the influence that each driver has on business student satisfaction and the importance of each driver to students	Students are more concerned and placed more importance on the drivers that are related to the physical and facilitating goods followed by the teaching and learning drivers or the explicit and the implicit services
Identify the underlying dimensions of the satisfaction drivers that influence business student satisfaction	<p>Twelve factors emerged from the 53 satisfaction drivers namely</p> <ul style="list-style-type: none"> <li>• professional comfortable environment:</li> <li>• student assessments and learning experiences</li> <li>• classroom environment</li> <li>• lecture and tutorial facilitating goods</li> <li>• textbooks and tuition fees</li> <li>• student support facilities</li> <li>• business procedures</li> <li>• relationship with teaching staff;</li> <li>• knowledgeable and responsive faculty</li> <li>• staff helpfulness</li> <li>• feedback</li> <li>• class sizes</li> </ul>
Evaluate the influence that factors such as year of study, programme of study, semester grade, gender, and nationality have on the results	<p>Six factors namely</p> <ul style="list-style-type: none"> <li>• student support facilities</li> <li>• class sizes</li> <li>• classroom environment</li> <li>• business procedures</li> <li>• relationship with teaching staff are significant with the year of study programme of study and semester grade.</li> <li>• textbooks and tuition fees is significant with gender and nationality</li> </ul>
Identify the areas of service priority towards better allocation of resources	<ul style="list-style-type: none"> <li>• Quadrant A- business procedures</li> <li>• Quadrant B- professional comfortable environment; lecture and tutorial facilitating goods; relationship with teaching staff; and knowledgeable and responsive faculty</li> <li>• Quadrant C- textbooks and tuition fees; student support facilities; and staff helpfulness</li> <li>• Quadrant D- student assessments and learning experiences; classroom environment; feedback; and class sizes</li> </ul>

### **5.3 Implications**

The issues examined in this study and the findings have wide implications that need to be addressed accordingly.

The results of the ranking of the satisfaction and importance drivers show that students are concerned and placed more importance on the physical facilities and facilitating goods, specifically in the lecture and tutorial rooms, followed by the explicit and implicit services or the teaching and learning drivers. Students indicate their needs for a more comfortable and conducive learning environment together with the quality of the teaching and learning drivers. Providing the physical facilities and facilitating goods together with the effective teaching and learning drivers identified by the students can enhance the interaction between the students and the teaching staff. Students spend most of their time inside the lecture and tutorial rooms, as such; the educational providers have to consider these needs. The teaching and learning equipment have to be well maintained to ensure the smoothness of the service delivery. As stated earlier as well the “student-as-customer” concept requires the students to “co-produce” the educational services; as such, the facilities used during the interaction have to function well too.

In addition, the educational institutions can address the issues of the teaching staff by allocating more resources to hire the right staff and to provide training and staff and development programmes to enable staff to continuously satisfy students. Teaching staff should also reflect their willingness to provide assistance to the students and be more approachable; not just during the lectures but also to provide flexible consultation hours.

The teaching staff should demonstrate their level of professionalism in dealing with the students as the results show that students want the teaching staff to be more responsive to their needs. Quality is another issue that needs to be addressed as the results of the study show that students are concerned about that. Educational institutions need to focus on the drivers that can be linked to quality education and specifically with regards to quality improvement; the institutions could consider introducing quality standards for the explicit services and enhancing the quality of the teaching and learning aspects.

Understanding the underlying dimensions of the satisfaction drivers could also help the management of the educational institutions to assess student satisfaction better as they provide the general evaluative dimensions of the students. Twelve factors have been identified from the 53 drivers that provide better understanding of business student satisfaction in the Malaysian private educational environment. The 12 factors identified, namely professional comfortable environment; student assessments and learning experiences; classroom environment; lecture and tutorial facilitating goods; textbooks and tuition fees; student support facilities; business procedures; relationship with teaching staff; knowledgeable and responsive faculty; staff helpfulness; feedback; and class sizes, could help the management of the educational institutions to define areas for planning and action.

The first factor, professional comfortable environment clearly provides the indication that students want the teaching staff to be professional in delivering their educational services. In addition, they want a comfortable university environment and the feelings that they are



in “good hands” in their educational experience. As education is a service, the people element becomes very critical. Educational institutions need to train, develop and motivate staff accordingly to make them capable and competent. The process element also needs to be looked into, as delivery of the lectures and other related matters are important elements of the service encounter. The second factor, student assessments and learning experiences also showed that students expect fairness and appropriate assessments. Again the people element contributes in enhancing students’ satisfaction levels.

Factors three, four, five, six, and seven revealed the importance of the physical facilities and the facilitating goods to students, as they consist of classroom environment, lecture and tutorial facilitating goods, textbooks and tuition fees, and the business procedures. Students spend most of their time at the campus, as such; they are evaluating what is being provided and not provided to them. Students also expect a good conducive learning environment. Physical evidence or service environment aspects have to be examined in more detail by educational institutions if they want to be competitive and strengthen their position as education providers.

Factors eight, nine, ten, and eleven showed that relationship with the teaching staff; knowledgeable and responsive faculty; staff helpfulness; and the usefulness and promptness of feedback are important enhancing levels of student satisfaction. Students want the teaching staff to be knowledgeable, approachable, and to provide assistance to them when needed. Students also want prompt feedback on their coursework, projects,

and tests. The administrative staff have to be helpful too as students have to interact with them as well. Training and developing such staff could help to foster good relationship between the teaching and the administrative staff in performing their tasks. Class size is another factor that has to be looked into by educational institutions. Students are concerned about the size of the class as they want attention to be given to them and at the same time comfort towards their learning experiences. The 12 factors seem to provide useful implications to the educational institutions in developing and managing their integrated service management.

The results also show the influence the demographic profiles have on the levels of business student satisfaction in the Malaysian private educational environment. These results could shed some lights to the educational institutions. Year one students show favourable level of satisfaction with the student support facilities and the class sizes as compared to the year two and year three students. Student support facilities consist of the IT facilities overall, the learning resources centre overall, the vending machines overall, the on-campus cafeteria/ canteen facilities, and the recreational facilities overall. Satisfied students can provide positive word-of-mouth to the educational institutions and they are also good public relations agents. Year three students are graduating students, as such,; their opinions and, preferences are likely to affect the reputation and standing of the educational institutions. As stated by Gardner and Van der Veer (1998), reflections by the senior student are almost honest cumulative assessment of the university experience, and thus, provide good grounds for quality enhancement.

With regards to the programme of study, IB students indicate unfavourable level of satisfaction with the classroom environment, student support facilities, business procedures, relationship with teaching staff, and the class sizes as compared to the other programmes of studies. A more thorough analysis has to be carried out to determine the needs of the students with regards to the factors and then linking to the students' specialisations. The student support facilities and class sizes also appeared to be significant, with the semester grade. "A" grade students seem more satisfied than the "B" grade students with regards to the student support facilities, and "B" grade students satisfied with the class sizes as compared to the "D" grade students. The implications that could be derived from these findings indicate that the educational institutions have to engage in frequent student forums and to obtain constant feedback from the students on their level of satisfaction. Positive students' experiences are very important and from the educational institution's point of view, satisfied students are more likely to stay with the institution and stand more chance to excel in their studies.

Gender and nationality tend to have significant difference within the factor of textbooks and tuition fees. Educational institutions need to address these issues, especially the tuition fees, as the female and the local students have indicated their low levels of satisfaction on this issue. Students are the recipients of the educational services, as such; they want value for the textbooks that they purchased and the tuition fees that they paid. Clearer justification has to be provided on the charges that are being imposed on the services delivered to them. Towards generating revenue, the educational institutions

should not overlook the possibilities of losing students to competitors if they are not satisfied with the fees.

Another issue that offers some implications relates to the quadrant analysis conducted. The analysis provided some strategic alternatives to the business schools and educational institutions in general. The factor that requires immediate attention as it falls in the quadrant A, is the business procedures. The drivers for this factor consist of the availability of parking; the security measures overall; the registration procedures; the toilet facilities; and the accommodation facilities/ services overall. The resources for this factor have to be effectively and efficiently allocated so as to ensure that the level of business student satisfaction and perceptions can be enhanced. Students have to interact with the various offices or departments at the educational institutions, as such; the level and the manner of the services delivered are of concern and significance to the students. Quadrant B indicates acceptable strategies are being adopted at the moment but since student satisfaction requires constant monitoring, providers still have to continuously monitor the situation. The factors found in this quadrant consist of professional comfortable environment; lecture and tutorial facilitating goods; relationship with teaching staff; and knowledgeable and responsiveness of the faculty. The resources in the quadrant C and D respectively have to be reassessed by the educational institutions too as the current strategies do not reflect that they are allocated accordingly. Quadrant C indicates low priority and the factors found here are the textbooks and tuition fees; student support facilities; and staff helpfulness. As for quadrant D, it clearly indicates the resources are not efficiently and effectively allocated for the four factors found here, that

is, student assessments and learning experiences; classroom environment, feedback, and class sizes.

Undertaking this study has actually helps towards the author's personal development as every moment adds up and enhances her knowledge base. Towards obtaining feedback on this study, the author has co-authored two papers with her principal supervisor and had presented them at the respective conferences in October 2010 and November 2010. In addition to that, the author also contributed to the NBS Working Paper series (the papers have been attached in the Appendices 5.1, 5.2, and 5.3 respectively). Understanding student satisfaction and their perceptions can also help the author professionally because they will enable her to understand the needs of the students better and to continuously provide quality teaching and consultation to them. The author also hopes to have more publications, provide trainings and consultancy in the future. A summary of the implications of this study is presented in Table 5.2.

Table 5.2 Summary of the Implications

Issues	Implications
Ranking of the satisfaction and importance drivers	<ul style="list-style-type: none"> <li>• To provide comfortable and conducive learning environment together with the quality of the teaching and learning drivers</li> <li>• Teaching equipment have to be well-maintained to ensure smoothness of the service delivery</li> <li>• To allocate more resources to hire the right teaching staff and to provide training and staff development programmes so as to enable staff to continuously satisfy students</li> <li>• To have more approachable teaching staff</li> <li>• To provide quality education and hence quality improvements</li> <li>• To introduce quality standards for the explicit services</li> </ul>
Underlying dimensions of the satisfaction drivers-12 factors identified	<ul style="list-style-type: none"> <li>• Helps to assess and understand student satisfaction better as they provide the general evaluate dimensions of the students</li> <li>• Better planning tools for the educational institutions as such; could assist in the implementation of more appropriate strategies with regards to the people, process, and physical evidence or service environment towards satisfying the students</li> </ul>
Demographic influences such as year of study, programme of study, semester grade , gender and nationality on the 6 factors	<ul style="list-style-type: none"> <li>• Students from different levels of study and different programmes demonstrate different satisfaction levels</li> <li>• Semester grade does influence the students' satisfaction levels</li> <li>• Gender and nationality do influence the satisfaction levels of the students</li> </ul> <p>Therefore, educational institutions have to consider the six factors that are significant in their strategies so as to be competitive</p>
Importance-satisfaction grids (Quadrant analyses)-8out of 12 factors require attention	Educational institutions have to reassess their current allocation of resources, especially on the eight factors identified
Personal development	Helps to enhance the author's knowledge base, obtaining feedback by attending and participating in conferences and plan to have more publications, as well as to provide trainings and consultancy in the future

The following section will discuss the contributions of the study.

#### 5.4 Contributions

By meeting the objectives indicates that this study contributes to the marketing literature from both the academic and practical perspectives.

As reviewed in chapter two, despite the criticisms, many studies on student satisfaction (Arambewela and Hall, 2009; Bigne *et al.*, 2003; Cuthbert 1996a, b; LeBlanc and Nguyen; 1997; Oldfield and Baron, 2000; Soutar and McNeil, 1996; and Prugsamatz *et al.*, 2006) adopted SERVQUAL and SERVPERF models. Studies conducted in Malaysia (Abdullah, 2005, 2006; Hishamuddin *et al.*, 2008; Illias *et al.*, 2008; Poh and Samah, 2006; and Shekarchizadeh *et al.*, 2011) also adopted SERVQUAL and SERVQUAL models to measure student satisfaction.

Based on the criticisms of both SERVQUAL and SERVPERF models, this study has taken another approach by adopting and extending another model called service-product bundle to evaluate business student satisfaction in the Malaysian private educational environment. The model is more comprehensive and suitable for the education sector. This is an important contribution as it provides an improved understanding of student satisfaction and perceptions of the three elements in Douglas *et al.*'s., (2006) service-product bundle, which consist of the physical and facilitating goods, the sensual or explicit services and the psychological or implicit services. The explicit and the implicit services can also be referred to as the teaching and learning drivers. This study discovers and strengthens the point that the bundle is inseparable as put forward by Douglas *et al.*, (2006). Even though the findings contradict most studies that gave high ranking to the teaching and learning followed by the physical facilitating goods, the outcomes of the study clearly indicate the needs of the students to have both sets of drivers towards positive learning experiences.

The outcomes of the identification of the underlying dimensions also provide an important contribution to the marketing literature as understanding the students' general evaluative dimensions could lead to a better understanding of student satisfaction and perceptions. From the 53 drivers adopted and extended from the service-product bundle model, 12 factors have been identified which provide better understanding of student satisfaction, specifically on the business student satisfaction. This could provide an enhanced framework for future studies too. As indicated by Finney and Finney (2010), studies on understanding the perceptions of the students in the exchange process and how they feel entitled could help the educational institutions to develop effective and efficient strategies.

The outcomes of the influence of the demographic profiles such as year of study; programme of study; semester grade, gender and nationality on the results also provide another contribution to the marketing literature as six factors were found to be significant. Several strategic alternatives can be derived from the quadrant analysis which could offer insights for future research in this area of student satisfaction and could enhance the earlier contributions by O'Neil and Palmer (2004) and Ford *et al.*, (1999).

From the professional practice contributions, this study will benefit business schools and educational institutions in general as it provides practical information about what and how students of different levels of study; programme of study; gender; nationality; and level of academic performance consider important in their level of satisfaction and



perceptions. Understanding student satisfaction is very important in this dynamic educational environment as education is considered as a key driver of economic growth. In addition, this study will also assist the educational providers in allocating their resources in a more effective and efficient manner. In this competitive environment, strategic positioning of resources is critical as students are constantly evaluating the services provided to them. Please refer to Table 5.3 for the summary of areas of contribution of this study.

Table 5.3 Summary of Areas of Contributions

Area	Contribution
Theoretical contributions	<ul style="list-style-type: none"> <li>• Provides an improved understanding of student satisfaction and perceptions of the three elements in the bundle consisting of the physical and facilitating goods; explicit; and the implicit services</li> <li>• Understanding of students' general evaluative dimensions through the twelve factors identified</li> <li>• Better understanding of the demographic influences on the six factors</li> <li>• identification of the service priorities (eight factors) towards better allocation resources</li> </ul>
Professional practice contributions	<ul style="list-style-type: none"> <li>• Provides practical information about what and how students of different levels of study; different programmes of study; different academic performances or semester grades; gender; and nationality consider important in their level of satisfaction and perceptions</li> <li>• Helps towards better allocation of resources so as to be effective and efficient in their strategies of making the students satisfied</li> </ul>

## **5.5 Limitations and Avenues for Further Research**

Although this study reviewed a large volume of literature in the area of student satisfaction and subjected to many data analysis tools, it is acknowledged that there are some shortcomings worth mentioning that could provide avenues for further research.

This study examined business student satisfaction and perceptions from only four private educational institutions in Malaysia. Broader and more randomized samples from various degree programmes can generate better understanding of the levels of student satisfaction and their perceptions; as such,; future studies can consider adopting that approach. Data could also be collected from more than four educational institutions so as to provide a better benchmarking of the data and enhance the findings.

This study had intentionally focused on the student's perspective. Future studies can consider evaluating other stakeholder's perspectives of satisfaction such as the academics, parents, the employers and others. These future approaches could benefit the students in the future as well as the outcomes of the suggested studies enhancing the interaction between the students and the stakeholders as well. Focus group sessions with the students and other stakeholders such as the employers and the parents could provide more insights and more value to the research undertakings.

The context of the current study is on the Malaysian private educational environment. Future studies can consider evaluating the levels of student satisfaction and perceptions in

the public universities and also to conduct comparative studies on both environments so as to identify useful insights in the area of student satisfaction.

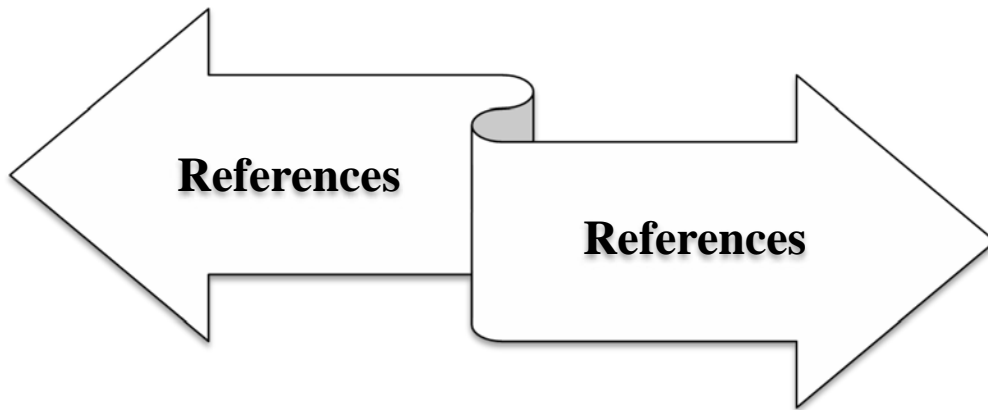
The other issue worth mentioning is that this study's main aim is to identify and evaluate the drivers of student satisfaction in the Malaysian private educational environment. Studies in the future can also consider further assessment of the cultural issues that influence student satisfaction as culture is the roots of many discoveries in marketing. Future comparative studies between students in Malaysia and other countries such as UK, Canada and others could also be carried out.

The main aim of this study is to identify and evaluate the drivers of business student satisfaction. This study did not evaluate the cause and effect relationships of the drivers of business student satisfaction. Future studies could consider looking at the causal relationships, establishing the antecedents and consequences of student satisfaction and also to utilise other data analysis tools not considered in this study.

As this study adopted a positivist approach as its research philosophy, future studies could consider a subjective approach towards understanding student satisfaction.

In conclusion, what can be observed is that the area of student satisfaction still requires further research if a thorough understanding is to be developed. This study has provided a certain level of understanding of student satisfaction within the scope and boundaries defined and it is hoped that it could benefit the educational providers to enhance their

strategies. A major challenge facing educational institutions is to identify students' needs and to develop the appropriate strategies towards fulfilling those needs. Students, as the direct recipients of the educational services have their own expectations, perceptions, preferences, and opinions on the factors that affect their levels of satisfaction. As stated by Arambewela and Hall (2008), addressing the needs of the customers can ensure customer satisfaction leading to organizational success. Providing quality education and continuously monitoring levels of student satisfaction and their perceptions of the factors is important in this dynamic and challenging educational environment.



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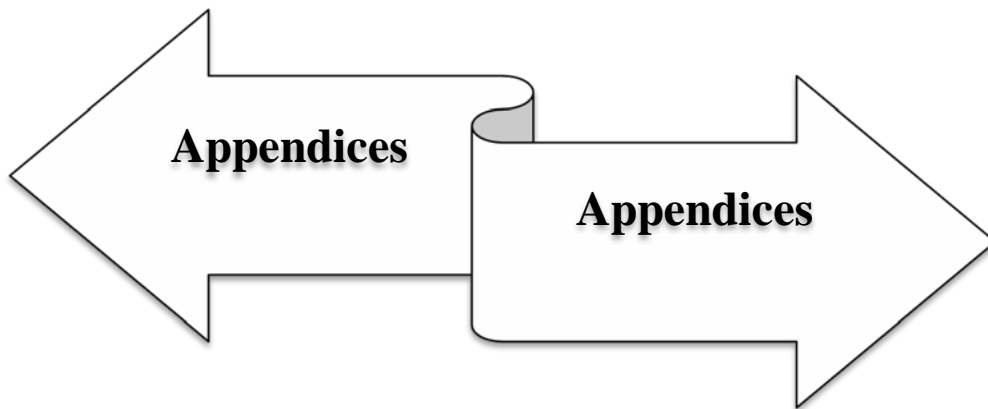
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### Appendix 3.1-Pre-testing Results

#### Preliminary Data Analysis and Findings

The Demographic profile of the respondents for the pilot study can be distributed as follows:

#### Demographic profile of the respondents

	Frequency	Percent
Gender		
Female	15	50.0
Male	15	50.0
Year of Study		
Year 1	21	70.0
Year 2	6	20.0
Year 3	3	10.0
Nationality		
Local	26	86.7
International	4	13.3
Programme of study		
Accounting	17	56.7
International Business	12	40.0
Financial Planning	1	3.3
Semester grade		
A	2	6.7
B	11	36.7
C	13	43.3
D	4	13.3

According to Head of the Programme of the Faculty of Business and Accountancy, the population of the private educational institution under study is currently about 5,000 students and 2,200 students are from the Faculty of Business and Administration. A more balanced proportion

of students in terms of the year of study, nationality and programme of study, however, are expected for the final survey.

#### Reliability of the instrument

In order to ensure that there is internal consistency of the variables, reliability tests (Cronbach's alpha) were carried out and the results are as follows:

Reliability coefficient for Satisfaction elements

Elements	Cronbach's alpha	Number of factors
The Facilitating Goods	0.823	4
The Physical Facilities	0.817	5
The Explicit Service	0.855	6
The Implicit Service	0.892	11

Reliability coefficient for Importance elements

Elements	Cronbach's alpha	Number of factors
The Facilitating Goods	0.792	4
The Physical Facilities	0.873	5
The Explicit Service	0.799	6
The Implicit Service	0.870	11

From the tables above, we can see that the reliability coefficient of the satisfaction elements range from 0.817 to 0.892 and from 0.792 to 0.873 for the importance elements. Nunnally (1967) states that the reliability of 0.50 to 0.60 is acceptable for research conducted at the beginning

stage. Sekaran (2003) on the other hand indicates that reliability that is above 0.80 is considered good and the range of 0.70 can be considered as acceptable. He further states that reliability that is less than 0.60 is considered poor. The internal reliability of the factors is satisfactory in the pilot survey.

The Summary of the means and standard deviation for satisfaction elements

The Summary of the means and standard deviation for the satisfaction elements

Summary of means and standard deviation		
Elements	Means	Std. deviation
The lectures and tutorials	3.400	0.7701
The presentation slides	3.367	0.9279
The supplementary handout documents/ materials	2.933	0.8277
The recommended module text	3.300	0.7944
The lecture theatres and tutorial rooms and their level of furnishing	3.000	0.9469
The decoration	2.800	0.9248
The lighting and layout	3.067	0.7397
The catering	2.700	0.9523
The recreational amenities	2.800	0.7144
The knowledge levels of staff	3.367	1.0981
The staff teaching ability	3.467	1.1666
The consistency of teaching irrespective of personnel	3.367	0.9643
The ease of making appointments with staff	3.267	0.7397
The level of difficulty of the subject content	3.467	0.9371
The workload	3.300	0.7397
The friendliness of teaching staff	3.467	0.9371
The approachability of teaching staff	3.500	0.8610
The concern shown when you have a problem	3.167	0.9129

The respect for your feelings, concerns and opinions	3.400	0.8137
The availability of staff	3.167	1.0199
The competence of staff	3.433	0.8584
The university environment's ability to make you feel comfortable	2.833	1.0199
The sense of competence, confidence and professionalism conveyed by the ambience in the lectures	3.400	0.9322
The sense of competence, confidence and professionalism conveyed by the ambience in the tutorials	3.300	0.8367
The feeling that your best interests are being served	2.967	0.9643
The feelings that the rewards gained are consistent with the effort you put into assessment	3.267	0.7849

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Students find approachability of teaching staff to be of highest value and catering to be the least in terms of satisfaction. Other elements which are also of high values are the staff teaching ability and the friendliness of the staff.

The Summary of means and standard deviation for the importance elements

The Summary of the means and standard deviation for the importance elements

Summary of means and standard deviation		
Elements	Means	Std. deviation
The lectures and tutorials	4.067	0.9803
The presentation slides	4.000	0.9469
The supplementary handout documents/ materials	3.567	1.0063
The recommended module text	3.633	0.8087
The lecture theatres and tutorial rooms and their level of furnishing	3.767	0.8976
The decoration	3.467	0.7303
The lighting and layout	3.800	0.8052
The catering	3.600	0.8944
The recreational amenities	3.533	0.8996
The knowledge levels of staff	4.367	0.9643
The staff teaching ability	4.500	0.9002
The consistency of teaching irrespective of personnel	4.200	0.7611
The ease of making appointments with staff	3.800	0.8052
The level of difficulty of the subject content	3.833	0.9855
The workload	3.933	0.8277
The friendliness of teaching staff	4.100	0.8030
The approachability of teaching staff	4.200	0.9966
The concern shown when you have a problem	4.033	0.9643
The respect for your feelings, concerns and opinions	4.067	0.9444
The availability of staff	4.033	0.7184
The competence of staff	4.033	0.8503
The university environment's ability to make you feel comfortable	4.400	0.6747
The sense of competence, confidence and professionalism conveyed by the ambience in the lectures	4.067	0.8277

The sense of competence, confidence and

professionalism conveyed by the ambience in the tutorials	4.133	0.8193
The feeling that your best interests are being served	4.200	0.8867
The feelings that the rewards gained are consistent with the effort you put into assessment	4.000	0.8710

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As for the importance elements, the highest value is the staff teaching ability and the least is the decoration. Other importance elements that are also of high values are university environment's ability to make student feels comfortable and the knowledge level of the staff (please refer to table above). Other analyses such as factor analysis, correlation analysis and analysis of variance (ANOVA) have not been conducted yet at this stage due to the small sample size.

## **Appendix 3.2**

### **STUDENT SATISFACTION SURVEY**

Dear Respondent,

I am a postgraduate Doctoral Research Student at Newcastle Business School, Northumbria University. I am currently undertaking a study on “Business Student Satisfaction in the Malaysian Private Educational Environment” as my thesis project.

The purpose of this study is to determine the satisfaction level and the importance of the various categories of the service-product bundle at your educational institution and hopefully contribute towards the enhancement of your student learning experience. In this connection, I would appreciate your participation by completing the questionnaire, as your cooperation will certainly contribute to the success of this study.

Please be assured that this research is purely an academic exercise, and will be in accordance with the Northumbria University Ethical Principles, that is, to maintain (1) respondent’s (your) anonymity; and (2) respondent’s (your) confidentiality. In view of this, your participation in this study is completely voluntary and the information provided will exclusively be for the academic purpose.

Thank you very much.

Sincerely,  
Mazirah Yusoff



**SECTION A** - *Please tick on the circle under each category of satisfaction and importance elements.*

**LECTURE AND TUTORIAL FACILITIES**

*How do you rate...*

1. The lecture and tutorial rooms overall
2. Class sizes
3. The level of cleanliness
4. The lighting
5. The layout
6. The decoration
7. The furnishings
8. The teaching and learning equipment,  
for example, projectors, screens, whiteboards

SATISFACTION					IMPORTANCE				
Very unsatisfactory		Neutral		Very satisfactory	Very unimportant		Neutral		Very important
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**SECTION B** - *Please tick on the circle under each category of satisfaction and importance elements.*

**ANCILLARY (SUPPORTING) FACILITIES**

*How do you rate...*

9. The on-campus cafeteria/ canteen facilities
10. The vending machines overall
11. The Learning Resources Centre overall
12. The IT facilities overall
13. The toilet facilities overall
14. The recreational facilities overall

SATISFACTION					IMPORTANCE				
Very unsatisfactory		Neutral		Very satisfactory	Very unimportant		Neutral		Very important
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

15. The availability of parking
16. The security measures overall
17. The registration procedures
18. The accommodation facilities/ services overall

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**SECTION C** - *Please tick on the circle under each category of satisfaction and importance elements.*

### THE FACILITATING GOODS

*How do you rate...*

**SATISFACTION**

Very unsatisfactory      Neutral      Very satisfactory

**IMPORTANCE**

Very unimportant      Neutral      Very important

19. The lectures overall
20. The tutorials overall
21. The powerpoint/ slide presentations  
(where applicable)
22. Supplementary lecture materials/ handouts
23. Supplementary tutorial materials/ handouts
24. The recommended core textbooks overall
25. The textbook value for money
26. The tuition fees
27. The textbooks' usefulness in enhancing  
understanding of the modules
28. The textbooks' availability in local bookstores

<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**SECTION D - Please tick on the circle under each category of satisfaction and importance elements.**

**THE EXPLICIT SERVICE**

*How do you rate...*

	SATISFACTION			IMPORTANCE		
	Very unsatisfactory	Neutral	Very satisfactory	Very unimportant	Neutral	Very important
29. The subject expertise of the staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
30. The teaching ability of the staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
31. The consistency of teaching quality irrespective of the lecturer	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
32. The way your timetable is organised	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
33. The responsiveness of teaching staff to requests	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
34. The level/ difficulty of subject content	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
35. The course workload	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
36. The appropriateness of the method of assessment (coursework and/ or examination)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
37. The appropriateness of the style of assessment (individual and/ or group work)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
38. The appropriateness of the quantity of assessment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
39. The promptness of feedback on your performance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
40. The usefulness of feedback on your performance	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
41. The helpfulness of technical staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
42. The helpfulness of administrative staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**SECTION E - Please tick on the circle under each category of satisfaction and importance elements.**

**THE IMPLICIT SERVICE**

*How do you rate...*

	SATISFACTION			IMPORTANCE		
	Very unsatisfactory	Neutral	Very satisfactory	Very unimportant	Neutral	Very important
43. The friendliness of teaching staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
44. The approachability of teaching staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
45. The concern shown when you have a problem	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
46. The respect for your feelings, concerns and opinions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
47. The availability of staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
48. The competence of staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
49. The University environment's ability to make you feel comfortable	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
50. The sense of competence, confidence and professionalism conveyed by the ambience in the lectures	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
51. The sense of competence, confidence and professionalism conveyed by the ambience in the tutorials	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
52. The feelings that your best interests are being served	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
53. The feelings that rewards (marks/ grades) gained are consistent with the efforts you put into assessment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

**SECTION F - *Please tick on the circle under each category.***

**DEMOGRAPHIC INFORMATION**

This information is important to the study and it will not be used to identify individuals.

54. Gender: Male ☐ Female ☐
55. Year of Study: Year 1 ☐ Year 2 ☐ Year 3 ☐
56. Nationality: Local ☐ International ☐
57. Programme of Study: Marketing ☐
- Business Administration ☐
- Accounting ☐
- Financial Planning ☐
- International Business ☐
- Other ☐
58. Semester Grade: A ☐
- (for all subjects in the B ☐
- most recent semester) C ☐
- D ☐
- F ☐

Thank you again for taking part in this survey. Please feel free to use the space below to provide any additional information or comment that you think will assist this questionnaire.

### Appendix 3.3

#### Newcastle Business School Informed Consent Form for research participants

Title of Study:	Evaluating Business Student Satisfaction in the Malaysian Private Educational Environment
Person(s) conducting the research:	Mazirah Yusoff
Programme of study:	Doctor of Business Administration (DBA)
Address of the researcher for correspondence:	INTI International University Persiaran Perdana BBN, Putra Nilai 71800, Nilai, Negeri Sembilan MALAYSIA
Telephone:	+60122872612
E-mail:	mazirah.yusoff@newinti.edu.my
Description of the broad nature of the research:	The purpose of this study is to determine the satisfaction level and the importance of the various categories of the service-product bundle at the educational institutions
Description of the involvement expected of participants including the broad nature of questions to be answered or events to be observed or activities to be undertaken, and the expected time commitment:	Questionnaires will be distributed to the undergraduate business students which consist of 53 questions on the satisfaction and importance elements in the form of 5 Likert-scales and another 5 demographic information type of questions for them to fill out. The process will take about 15-20 minutes only. Two focus groups sessions will be conducted to refine the questionnaires before distributing to the students.

Information obtained in this study, including this consent form, will be kept strictly confidential (i.e. will not be passed to others) and anonymous (i.e. individuals and organisations will not be identified *unless this is expressly excluded in the details given above*).

Data obtained through this research may be reproduced and published in a variety of forms and for a variety of audiences related to the broad nature of the research detailed above. It will not be used for purposes other than those outlined above without your permission.

Participation is entirely voluntary and participants may withdraw at any time.

**By signing this consent form, you are indicating that you fully understand the above information and agree to participate in this study on the basis of the above information.**

**Participant's signature:**

**Date:**

**Student's signature:** *Mazirah*

**Date:**

## Appendix 3.4

### RESEARCH ORGANISATION INFORMED CONSENT FORM

Newcastle Business School  
University of Northumbria

Completion of this form is required whenever research is being undertaken by NBS staff or students within any organisation. This applies to research that is carried out on the premises, or is about an organisation, or members of that organisation or its customers, as specifically targeted as subjects of research.

The researcher must supply an explanation to inform the organisation of the purpose of the study, who is carrying out the study, and who will eventually have access to the results. In particular issues of anonymity and avenues of dissemination and publications of the findings should be brought to the organisations' attention.

Researcher's Name: \_\_Mazirah Yusoff\_\_

Student ID No. (if applicable): \_\_08034664/1\_\_

Researcher's Statement:

The purpose of this study is to determine the satisfaction level and the importance of the various categories of the service-product bundle at your educational institution. Questionnaires will be distributed to the undergraduate business students with the help of your faculty members. I will liaise with your faculty members to facilitate the process. The survey will take approximately 20 minutes to administer.

No institution will be individually identified in my study and please be assured that any data collected will be treated with confidentiality and anonymity. In addition, no one under 18 years of age will be surveyed.

Any organisation manager or representative who is empowered to give consent may do so here:



Name: \_\_\_\_\_

Position/Title: \_\_\_\_\_

Organisation Name: \_\_\_\_\_

Location: \_\_\_\_\_

If the organisation is NBS please completed the following:

Start/End Date of Research / Consultancy project:	Start: End:
Programme  Year  Sample to be used: seminar group, entire year etc.	
<i>Has Programme Director/Leader, Module Tutor being consulted, informed.</i>	

Anonymity must be offered to the organisation if it does not wish to be identified in the research report. Confidentiality is more complex and cannot extend to the markers of student work or the reviewers of staff work, but can apply to the published outcomes. If confidentiality is required, what form applies?

- ☐ No confidentiality required
- ☐ Masking of organisation name in research report
- ☐ No publication of the research results without specific organisational consent
- ☐ Other by agreement as specified by addendum

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

This form can be signed via email if the accompanying email is attached with the signer's personal email address included. The form cannot be completed by phone, rather should be handled via post.

### **Appendix 3.5-Institution's Gaining Access letter**

2 September 2010

Institution Name  
Institution address

Dear Sir/ Madam,

I am writing to request your cooperation with my doctoral research. I am a postgraduate Research Student at Newcastle Business School, Northumbria University under the supervision of Professor Fraser McLeay. I am currently undertaking a study on "Business Student Satisfaction in the Malaysian Private Educational Environment" as my thesis project. The purpose of this study is to determine the satisfaction level and the importance of the various categories of the service-product bundle at your educational institution.

In the current phase of my study, I would appreciate if I be allowed to distribute my questionnaires to your business degree students. The survey will take approximately 20 minutes to administer. I will liaise with your faculty members to facilitate the process.

No institution will be individually identified in my study and please be assured that any data collected will be treated with confidentiality and anonymity. In addition, no one under 18 years of age will be surveyed.

Thank you very much in anticipation of your favourable action and continued support.

Sincerely,

Mazirah Yusoff

## Appendix 4.1

### Analysis of Students' Satisfaction and Importance Ratings

Summary of Means		
Drivers/Factors	Satisfaction	Importance
<i>Professional Comfortable Environment</i>		
The sense of competence, confidence and professionalism conveyed by the ambience in the tutorials	3.427	4.182
The feelings that your best interests are being served	3.211	4.211
The sense of competence, confidence and professionalism conveyed by the ambience in the lectures	3.457	4.168
The feelings that rewards-marks/ grades gained are consistent with the efforts you put into assessment	3.269	4.316
The university environment's ability to make you feel comfortable	3.349	4.310
The competence of staff	3.290	4.115
The availability of staff	3.287	4.165
The respect for your feelings, concerns and opinions	3.328	4.233
<i>Student Assessments and Learning Experiences</i>		
The appropriateness of the method of assessment-	3.367	4.158

coursework and/ or examination		
The appropriateness of the style of assessment- individual and/ or group work	3.360	4.154
The course workload	3.621	4.080
The level/ difficulty of subject content	3.351	4.157
The appropriateness of the quantity of assessment	3.295	4.044
The way your time table is organised	3.105	4.327
<i>Classroom Environment</i>		
The decoration	3.098	3.543
The layout	3.356	3.818
The furnishings	3.131	4.057
The teaching and learning equipment, for example, projectors, screens, whiteboards	3.454	4.463
The lighting	3.667	4.356
The level of cleanliness	3.524	4.338
The lecture and tutorial rooms overall	3.401	4.260
<i>Lecture and Tutorial Facilitating Goods</i>		
Supplementary tutorial materials/ handouts	3.523	4.320
Supplementary lecture materials/ handouts	3.533	4.363
The tutorials overall	3.497	4.442
The power point/ slides presentation- where applicable	3.611	4.346

The lectures overall	3.527	4.563
<i>Textbooks and Tuition Fees</i>		
The textbook value for money	2.760	4.043
The tuition fees	2.470	4.258
The textbooks' availability in local bookstores	3.106	4.092
The textbooks' usefulness in enhancing understanding of the modules	3.275	4.136
The recommended core textbooks' overall	3.378	4.147
<i>Student Support Facilities</i>		
The IT facilities overall	3.077	4.345
The learning resources centre overall	3.284	4.199
The vending machines overall	3.015	3.680
The on-campus cafeteria/ canteen facilities	2.759	4.255
The recreational facilities overall	3.091	3.942
<i>Business Procedures</i>		
The availability of parking	2.565	4.141
The security measures overall	3.225	4.281
The registration procedures	2.921	4.150
The toilet facilities overall	2.950	4.310
The accommodation facilities/ services overall	2.902	4.231
<i>Relationship with teaching staff</i>		

The approachability of teaching staff	3.566	4.286
The friendliness of teaching staff	3.560	4.331
The concern shown when you have a problem	3.377	4.316
<i>Knowledgeable and Responsive Faculty</i>		
The teaching ability of staff	3.379	4.382
The consistency of teaching quality irrespective of the lecturer	3.380	4.335
The responsiveness of teaching staff to requests	3.371	4.204
The subject expertise of the staff	3.292	4.250
<i>Staff Helpfulness</i>		
The helpfulness of administrative staff	3.107	4.220
The helpfulness of the technical staff	3.250	4.125
<i>Feedback</i>		
The usefulness of feedback on your performance	3.292	4.136
The promptness of feedback on your performance	3.252	4.101
<i>Class sizes</i>		
Class sizes	3.417	4.102

## **Appendix 5.1**

# **TOWARDS ENHANCING QUALITY AND SATISFACTION IN THE MALAYSIAN PRIVATE EDUCATIONAL ENVIRONMENT**

Mazirah Yusoff  
INTI International University  
Persiaran Perdana BBN, Putra Nilai  
Negeri Sembilan, MALAYSIA

Fraser McLeay  
Newcastle Business School  
Northumbria University  
Newcastle, UK

### **ABSTRACT**

The educational environment is very dynamic and challenging with intensifying competition. Educational institutions are being publicly compared to each other. Therefore, providing and maintaining quality education as well as understanding student satisfaction is becoming increasingly important.

This research seeks to evaluate the factors that influence student satisfaction and rank the perceived importance of these factors in the Malaysian private educational environment. The influence that variables such as gender, year of study, nationality, and different programmes of study have on student satisfaction will also be considered. A positivist approach will be adopted and the results from a student survey will be presented in the paper. Douglas *et al's.*, (2006) service-product bundle model which includes elements such as the facilitating or physical goods; the explicit sensual service provided; and the implicit psychological service will be adopted in this research. The outcomes of the research will enable educational institutions to allocate resources in a more efficient manner by taking into consideration the factors that influence satisfaction and ranking their importance as inputs to quality education.

**Keywords:** Quality, Satisfaction, Higher Education, Survey, Malaysia

### **Background of the study**

The Malaysian education industry is playing a very important role in national development. The higher education sector is under the jurisdiction of the Ministry of Higher Education (MOHE). The Malaysian Qualifications Agency (MQA) is a MOHE agency and has been approved by Parliament to implement the Malaysian Qualification Framework (MQF) covering both public and private higher educational institutions as a basis for quality assurance in higher education. The Malaysian private higher educational sector plays a major role in attracting international students and has been rapidly increasing in size. It is considered to be a catalyst for attaining high quality knowledge as well as producing competitive human capital (University Education in Malaysia, 2009). There were 16 private universities, 16 Private University Colleges, 4 Foreign

Branch Campus Universities and 485 Private Colleges in Malaysia in 2007, with 323,787 students in 2006 (Private Universities in Malaysia, 2009).

The educational environment is very dynamic, challenging and competitive. As a result, providing quality education as well as understanding student satisfaction, has become increasingly important to educational institutions. In an attempt to better understand the factors that influence student satisfaction and therefore identify strategies for improving service quality at Malaysian Universities, this research intends to:

- i) Evaluate the factors that influence student satisfaction;
- ii) Measure students' perceptions of the importance of each factor;
- iii) Evaluate the influence of factors such as gender, nationality; programme of study, year of study, and semester grade have on the results.

## **Literature Review**

### Student Satisfaction and Service Quality

According to Elliot and Healy (2001), student satisfaction is a short-term attitude that results from the evaluation of their experience with the education services received. Hatcher *et al.*, (1992) indicate that student satisfaction is the attraction, pride, or positive feelings students develop towards a programme or an institution. Elliott and Shin (2002) state that focusing on student satisfaction will enable the universities to re-engineer their institutions to address the needs of the students and at the same time enable them to develop a continuous monitoring system towards fulfilling those needs.

Researchers tend to be clear and precise about satisfaction and service quality even though the terms are used interchangeably by practitioners and writers. Brady and Cronin (2001) state that service quality actually reflects a customer's (or user's) perception of elements of service since it is a focused evaluation that includes interaction quality, physical environment quality, and outcome quality. With respect to quality education, many studies on student satisfaction are linked to service quality. Satisfaction includes perceptions of service quality, but also other influences such as university fees, personal and situational factors. Zeithaml and Bitner (2003) suggest that service quality involves the expectations of the customers (users) in relation to the actual performance of the providers.

### Evaluation of the Service Quality Models

In the general literature, several service quality models have been developed to measure service quality and its influence on satisfaction. The most widely used model is the SERVQUAL model developed by Parasuraman *et al.*, (1985) with ten dimensions that in 1988 was refined to five dimensions (tangibles, reliability, responsiveness, assurance and empathy). The SERVQUAL model has been highly valued and widely adopted in several types of service industries such as hospitals, banks, airlines, educational institutions, retail settings, telecommunications and others. SERVQUAL also has been widely used in countries such as the United States, Australia, China, South Africa, The Netherlands, Hong Kong, and the UK as well as Malaysia (Ladhari, 2008). Even though it has been widely adopted and highly valued, it has also received a lot of criticisms.



A newer model called SERVPERF was developed in response to the strong criticisms of the SERVQUAL model by Cronin and Taylor (1992). This model is based on Performance Model Satisfaction of the SERVQUAL scale with a reduction in the number of items but retention of the five quality dimensions. The expectation items were deleted and not used at all. This model has also received criticism for concentrating too much on the psychometric dimensions as well as the methodological soundness of its scales. Sureshchandar *et al.*, (2001) responded to the criticisms of SERVQUAL model by developing The Human-Societal Element Model. In doing so, they addressed other important elements of service quality such as the service product or the core service as well as the standardization and systematization of service delivery.

Yet another model that is more appropriate for this study was developed by Douglas *et al.*, (2006) and utilizes the concept of the “service-product bundle” to measure student satisfaction and the importance of the factors to the students. Three elements in the bundle are the physical or facilitating goods; the sensual service provided (the explicit service); and the psychological service (the implicit service). The “service-product bundle” refers to the inseparable offering of many goods and services. The bundle provides a more comprehensive understanding of the needs of the students than most other models and is therefore more suitable for the education sector.

#### Gender, nationality, year of study, programmes of study and the semester grade

Soutar and McNeil (1996) found that there is significant relationship between gender and satisfaction with service quality in tertiary education, as males were more satisfied than females. However, another study conducted by Joseph and Joseph (1998) indicates that there is no significant difference between males and females. With regards to the year of study, Corts *et al.*, (2000) conclude that there is no significant difference between junior and senior students' perceptions of satisfaction. Hill (1995) finds that there is stability on the students' expectations over time which suggests that they were probably formed prior to arrival at university. However, students who have been studying for longer perceived there was a reduction in their quality experience indicating that this was less stable. A study by Oldfield and Baron (2000) confirms this further as the mean score for the final year students were lower than those of the first year. This suggests that as students become more experienced in the higher educational settings, they tend to be more critical in their perceptions of the service quality. Nurlida's study (n.d) indicates that the international students' choice satisfaction resulted from satisfaction with the information acquired with regards to the college attributes. Aitken (1982) states that academic performance is one of the factors that can determine satisfaction.

## **Methodology**

A questionnaire based on Douglas *et al.*'s., (2006) “service-product bundle” has been adopted in this study. The questionnaire consists of five sections (A, B, C, D and E) developed to determine the satisfaction level and the importance of the service-product bundle for students at a Malaysian private educational institution. Section A consists of four questions on facilitating goods and five questions on physical facilities. Section B consists of six questions on explicit service and Section C consists of eleven questions on implicit service. These twenty-six items utilized a 5-point Likert-scale ranging from very unsatisfactory to very satisfactory and very

unimportant to very important. Section D seeks to obtain descriptive information on the students relating to gender, year of study, nationality, programme of study, and the semester grade. The last section, Section E is for the respondents to provide their comments.

A quantitative sample of 70 respondents (an 80% response rate) was received from students studying at a private educational institution in Malaysia. A convenience sampling method has been used to distribute the questionnaires to the respondents. The questionnaire was piloted on 30 students who took on average about 20 minutes to complete the questionnaire. The pilot was used to test the reliability of the survey instrument and make adjustments to any questions that the students had difficulty answering.

## Results and Discussion

The 70 student respondents consisted of 47.1% male students (52.9% female) studying for a mixture of Business Administration (14.3%), Accounting (34.3%), International Business (31.4%) and Financial Planning (20.0%) degrees. Seventy percent of students were in their first year of study, 31.4% in their second year and 11.4% in their third year of study. Seventy percent of students were Malaysian national and 30% international students. Approximately 5.9% of students were an A grade average, with 30% a B, 52.9% a C and 11.4%, a D grade.

In order to ensure that there is consistency of the variables, reliability tests (Cronbach's alpha) were carried out. The results are presented in Table 1. Sekaran (2003) indicates that reliability that is above 0.80 is considered good and the range of 0.70 can be considered as acceptable (0.60 is considered poor). The internal reliability of the factors is satisfactory in this survey.

Table 1: Reliability coefficient for satisfaction and importance elements

Elements	Number of factors	Satisfaction elements	Importance elements
The facilitating goods	4	0.826	0.806
The physical facilities	5	0.835	0.864
The explicit service	6	0.855	0.796
The implicit service	11	0.883	0.866

To analyze students' level of satisfaction in the Malaysian private educational environment, mean student scores were computed and are presented in Table 2. The results show that students are most concerned with approachability of teaching staff, the level of difficulty of the subject content, staff teaching ability, friendliness of the teaching staff, and the sense of competence, confidence and professionalism of the lecturers. Previous studies by Price *et al.*, (2003) and Douglas *et al.*, (2006) have reported similar results. Elements such as catering, recreational amenities, decoration, lecture theatres, and supplementary handout documents/ materials received the lowest student scores.

Table 2: Factors that influence students' satisfaction-the mean and standard deviation

Ranking	Highest Scoring Elements	Mean (Std. Dev)	Lowest Scoring Elements	Mean (Std. Dev)
1	Approachability of teaching staff	3.55 (0.84)	Catering	2.65 (1.01)
2	Level of difficulty of subject content	3.52 (0.86)	Recreational amenities	2.80 (0.77)
3	Staff teaching ability	3.52 (1.13)	Decoration	2.81 (0.92)

4	Friendliness of teaching staff	3.50 (0.91)	Lecture theatres and tutorial rooms	2.99 (1.01)
5	Sense of competence, confidence and professionalism of lecturers	3.47 (0.91)	Supplementary handout documents/ materials	3.00 (0.83)

As illustrated in Table 3, the respondents perceive that factors such as staff teaching ability, knowledge level of staff, university's environment, consistency of teaching, and feelings that their best interests are being served as most important. The least important factors were recreational amenities, decoration, catering, and the recommended module. Students seem to be very concerned with the teaching and learning elements rather than the physical facilities and the facilitating goods.

Table 3: Students' perceptions of the importance of each factor-the mean and standard deviation

Ranking	Highest Scoring Elements	Mean (Std. Dev)	Lowest Scoring Elements	Mean (Std. Dev)
1	Staff teaching ability	4.45 (0.89)	Recreational amenities	3.51 (0.86)
2	Knowledge level of staff	4.40 (0.93)	Decoration	3.52 (0.75)
3	University environment	4.32 (0.71)	Catering	3.55 (0.94)
4	Consistency of teaching	4.25 (0.73)	Supplementary handout documents/ materials	3.55 (0.98)
5	Feelings that their best interests are being served	4.20 (0.84)	Recommended module	3.65 (0.79)

A one-way ANOVA (Bonferroni method) was conducted to test the relationships between mean student ratings for each element of the service-product bundle (facilitating goods, explicit service, and implicit service) and descriptive characteristics such as gender, nationality, year of study, programme of study, and semester grade. Where significant differences exist, they are reported in Table 4.

## Conclusion and Suggestions

In conclusion, this study has evaluated the factors that influence student satisfaction in a Malaysian Private University and measured student's perceptions of the importance of each factor. The highest scoring elements that influence the level of students' satisfaction in this study are approachability of teaching staff; level of difficulty of subject content; staff teaching ability; friendliness of teaching staff; and the sense of competence, confidence, and professionalism of lecturers. On the other hand, the lowest scoring elements being catering; recreational facilities; decoration; lecture theatres and tutorial rooms, and the supplementary handout documents/ materials. Students perceived factors such as staff teaching ability; knowledge level of the staff; the university's environment; consistency of teaching; and feelings that their best interests are being served as important. The students are less concerned about the recreational facilities; decoration; catering; supplementary handout documents/ materials; and the recommended module.

Table 4: ANOVA tests

Satisfaction and Importance Elements	Descriptive Variables					F Ratio	Sig.	Sig. Difference
	<i>Year of Study</i>							
	1	2	3					
Satisfaction of Facilitating Goods	3.08	3.47	3.96			8.129	.001	3>1
Satisfaction of Physical Facilities	3.01	2.50	3.00			4.224	.019	1>2
Satisfaction of Explicit Services	3.27	3.36	4.18			5.793	.005	3>1,2

Satisfaction of Implicit Services	3.20	3.19	4.00			7.384	.001	3>1,2
Importance of Implicit Services	4.01	4.10	4.69			5.778	.005	3>1,2
	<i>Programme of Study<sup>1</sup></i>							
	FP	BA	A	IB				
Satisfaction of Facilitating Goods	3.71	2.92	3.12	3.42		3.991	.011	FP>BA,A
Importance of Implicit Services	4.43	3.83	3.89	4.29		5.228	.002	FP>BA,A
	<i>Semester Grade</i>							
	A	B	C	D				
Satisfaction of Implicit Services	4.02	3.22	3.32	2.95		3.198	.029	A>D
Importance of Implicit Services	4.70	4.16	4.15	3.53		5.569	.002	A>B,C,D
	<i>Gender</i>							
	Male	Female						
Importance of Facilitating Goods	4.06	3.62				6.827	.011	M>F

The results also illustrated that factors such as gender; nationality; programme of study; year of study; and semester grade do influence both levels of student satisfaction and importance ratings. Significance differences exist for satisfaction elements with regards to the facilitating goods and the year of study, programme of study; physical facilities and the year of study; explicit services and the year of study; the implicit services and the year of study and the semester grade. As for the importance elements, significant differences exist with regards to the facilitating goods and gender; implicit services and year of study, programme of study and the semester grade respectively.

A major challenge facing educational institutions is to identify students' needs and to develop the appropriate strategies towards fulfilling those needs. Students as the direct recipients of the educational services have their own expectations, perceptions, preferences, and opinions on the factors that affect their levels of satisfaction. As stated by Arambewela and Hall (2008), addressing the needs of the customers can ensure customer satisfaction leading to organizational success. Providing quality education and continuously monitoring levels of student satisfaction and their perceptions of the factors is important in this dynamic and challenging educational environment.

This exploratory study provides a framework for a further more comprehensive research with a larger sample size. Analysing student satisfaction is becoming very important and critical especially in the Malaysian private educational environment because apart from the intensifying competition, students are constantly evaluating educational services. Educational institutions may have to allocate their resources in a more efficient and effective manner in order to better satisfy student needs and provide a better quality education in the future.

<sup>1</sup> **FP**-Financial Planning **BA**-Business Administration **A**-Accountancy **IB**-International Business

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## Appendix 5.2

# SUSTAINING QUALITY EDUCATION IN THE MALAYSIAN PRIVATE EDUCATIONAL ENVIRONMENT

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### ABSTRACT

The educational environment is very dynamic and increasingly competitive. As such, providing and sustaining quality education is becoming very important to educational institutions. In Malaysia, education is a leading industry and plays a vital role in national development. As the private education sector is growing rapidly, there is a mounting interest to use service quality improvement measures to enhance competitiveness and sustain quality education in a globalized environment. This study examines sustaining quality education in the Malaysian private educational environment. Using a “service-product bundle” model with three elements (physical or facilitating goods; sensual or explicit services; and psychological or implicit services), this paper evaluates students' perceptions of the importance factors that influence educational quality and analyzes the influence that descriptive and demographic variables have on the results. This study adopts a positivist approach and analyses the results of a survey of students studying at a private educational institution. The findings will enable the educational institutions to understand these factors from a students' perspective and to provide more efficient and effective mechanisms to sustain quality education in a dynamic environment.

**KEYWORDS:** Quality, Perception, Higher Education, Survey, Malaysia

## BACKGROUND OF STUDY

Sustainability is a major issue for all organizations including the educational institutions in the 21<sup>st</sup> century. Organizations are now addressing sustainability by exploring and implementing sustainable practices to improve the environment and their own competitiveness (Rusinko, 2007). Higher educational institutions are exploring means to integrate sustainability into curricula (Cusick, 2009; Rusinko and Sama, 2009). Stubbs and Cocklin (2008) observe that the trend of companies implementing elements of sustainability into their business practices is increasing. Sibbel (2009) indicates that higher education should be a resource for sustainability. According to Amran and Devi (2007), awareness plays an important role in businesses starting their own sustainable development initiatives. As educational providers seek to simultaneously address the economic, social and environmental challenges required to be more sustainable, understanding the role of the factors that influence students' perceptions of education quality is becoming increasingly important.

The Malaysian higher education sector has become a centre of educational excellence in Asia. The Malaysian government is committed towards education. As such, the education sector has always enjoyed the highest national development budget. Both public and private educational institutions play an important role in providing tertiary education to Malaysian youth and adults. The higher education sector is under the jurisdiction of the Ministry of Higher Education (MOHE). The national quality agency, the Malaysian Qualifications Agency (MQA) has been approved by the Parliament to implement the Malaysian Qualifications Framework (MQF) covering both public and private higher educational institutions. The MQA is one of the agencies under the MOHE. Its role is to implement the Malaysian Qualifications Framework as a basis for quality assurance in higher education as well as be a reference point for the criteria and standards for national qualifications (MOHE, 2009).

In Malaysia private educational institutions play a major role in attracting international students to enrol and study. The private higher education sector consists of private colleges, private universities, university colleges and foreign university branch campuses, as well as distance learning centres. The main feature of these institutions is that they self-generate their resources from shareholders' funds, students' fees and business activities related to the education business (Soon, 1999). As such, they must be sustainable if they are going to survive. Sixteen private universities, 16 private university colleges, 4 foreign university campuses, and 485 private colleges in Malaysia were registered with the Ministry of Education in 2007. The total number of students enrolled in private universities and colleges stood at 323,787 in 2006. Private higher education institutions have contributed enormously to the Malaysian economy via foreign exchange earnings from the influx of foreign students which is currently made up of 50,000 international students from 100 over countries (Private Universities in Malaysia, 2009). The majority of the international students coming to Malaysia are from China, Indonesia, and Iran respectively (MOHE, 2007).

A sustainability focus permeates many aspects and activities at universities including administrative services, academic services, facilitating services, physical goods, research and



others. As a result of the increasingly competitive and dynamic educational environment, providing and sustaining quality education is becoming more important. The increased importance being placed on quality education is also necessary because many studies have shown quality education to have positive impact on student motivation, student retention, recruiting efforts and fundraising programmes (Elliot and Shin, 2002). In an effort to further understand the issues that lead to sustainable quality education in a Malaysian private educational environment, this study intends to:

- i) Analyze students' perceptions of the importance of the factors that influence quality;
- ii) Evaluate the influence that demographic and descriptive variables such as gender, nationality, year of study, and the programme of study have on the results;
- iii) Discuss the implications of the study.

The literature that reviews the role of students in educational institutions and quality issues are discussed in the next section, which also provides an overview of the present study. This is followed by a methodology section, a discussion of the results and the development of conclusion and implications.

## **LITERATURE REVIEW**

This section explores the role of students in educational institutions in order to justify why this study examines education quality from a student's perspective. It also discusses service quality, quality in education and the demographic and descriptive variables that are analyzed in this study.

### ***The role of students in the educational institutions***

There are many views with regards to students as customers (Sax, 2004). Some authors such as Albanese (1999) and Parsell (2000) argue that students should not be treated as customers. Others such as Hennig-Thurau *et al.*, (2001) suggest that students are not passive recipients of educational services and through their participation in the learning activities they are actually "co-producers" of their education. According to Joseph and Joseph (1998), students are the primary beneficiaries of education, and as such, they should be treated as customers. This is due to the understanding that the educational environment is very competitive and in view of that, educational institutions have to develop aggressive strategies to satisfy the students' needs and enhance their market share. Kotze and Plessis (2003) also agree that students participate in an array of learning activities and they in fact "co-produce" their education by contributing to their own satisfaction, quality, and value perceptions. Nejati *et al.*, (2009) state that educational institutions have to pay special attention to the students as their main customers and to provide quality services that will satisfy them. Some authors however, regard potential employers as the primary customers and students as secondary customers. Taking the above views into consideration, this study examines sustaining quality education from the students' perspective.

## ***Service Quality***

Service quality is a measure of how well service levels delivered match customer expectations (Parasuraman *et al.*, 1985). Sohail (2003) states that service quality has formed a nucleus of research which incorporates many dimensions of service outcome of which the parameters for achieving the outcomes are costs, profitability, customer satisfaction, customer retention and service guarantee. Li and Kaye (1998) are of the opinion that service quality deals with the environment, corporate image and interaction among people. According to Sarrael (2008), service quality focuses on satisfying customers' needs during "moments of truth" or service encounters or experiences that make up a customers' perception of an organization. Service quality according to Kasper *et al.*, (1999) is the extent to which the service process and the service organization can satisfy the expectations of the user. Gronroos (1978) argue that service quality is made up of the technical quality that relates to the delivery process and the functional quality which is the outcomes of the process. The last decades have witnessed the increased acceptance and use of many quality frameworks across both manufacturing and service sectors, as quality has been accepted and recognized as an important factor for growth, survival and success (Rust *et al.*, 1995). Service quality from the customers' perspective, involves their expectations and the judgment of the services received (Gronroos, 1984; Parasuraman *et al.*, 1985; Zeithaml *et al.*, 1985).

Service quality in the education sector is also important. Yeo (2008) states that in this sector service quality involve linking teacher-student participation with professionalism-intimacy in an effort to positively affect intermediate and lifelong learning. He further states that service quality is complex, as it is concerned with the physical, institutional and psychological aspects of higher education.

## ***Quality in Education***

Studies by Bauer (1992), Cheng and Tam (1997) and Pounder (1999) illustrate that as with services, the concept of quality can be interpreted in a number of different ways when applied to higher education. They suggest that there is a strong emphasis on the pursuit of educational quality in ongoing educational reforms in both local and international contexts and introduce models that provide comprehensive frameworks for understanding and conceptualizing quality in education from different perspectives. Peters and Waterman (1982) define quality in education as excellence in education. Others, such as Feigenbaum (1951) equate quality education to value in education. Crosby (1979) and Gilmore (1974) on the other hand say that it refers to conformance of education output to planned goals, specifications and requirements. Another definition by Sahney *et al.*, (2002) defines quality in education from a Total Quality Management (TQM) perspective. They conclude that TQM in education is multi-faceted and describe the foundation of an educational institution using a system approach, incorporating a management system, a technical system and a social system. It is clear that quality in education includes the quality of inputs in the form of students, faculty, support staff and infrastructure, the quality of processes in the form of teaching and learning activity, and the quality of outputs in the form of enlightened

students that move out of the system. Therefore, understanding and conceptualizing quality in education and developing managerial strategies for achieving and sustaining it is essential.

### ***Present Study***

This study adopts Douglas *et al.*'s., (2006) "service-product bundle" to measure students' perceptions of the factors that are important to them when studying at an educational institution and also to analyze the influence that descriptive variables have on the results. According to Douglas *et al.*, (2006) the service-product bundle refers to the inseparable offering of many goods and services and consists of three elements as follows:

- i) The physical or facilitating goods includes lectures and tutorials, presentation slides, supplementary handout documents/ materials and the recommended module texts. Physical facilities include lecture theatres and tutorial rooms and their level of furnishings, decoration, lighting and layout as well as the catering and recreational amenities.
- ii) The sensual service provided-the explicit service includes the knowledge levels of staff, staff teaching ability, the consistency of teaching quality irrespective of personnel, ease of making appointments with staff, the level of difficulty of the subject content and the workload.
- iii) The psychological service-the implicit service includes the treatment of students by staff, friendliness and approachability of the staff, capability and competence of the staff, the university's environment, the sense of competence, and professionalism conveyed by the ambience in the lectures and tutorials, feelings that the student's best interest is being served and a feeling that rewards are consistent with the effort put into courseworks/ examinations.

These academic services are similar to the quality of the lecturers and student engagement identified by Hill *et al.* (2003), and quality of programme issues described by Joseph and Joseph (1997). With regards to physical aspects, Gronroos (2000) uses the term servicescape whereas Oldfield and Baron (2000) describe them as functional.

### ***Demographic and Descriptive Variables***

In this study, the influence that: gender, year of study, programme of study and nationality have on the results are analysed. According to Brody and Hall (1993), Dittmar *et al.*, (2004) and Matilla *et al.*, (2003), gender may impact on perceptions of interaction quality, physical environment quality, outcome quality and systems quality due to gender role socialization, decoding ability, differences in information processing, traits, and the importance placed on core or peripheral services. Laroche *et al.*, (2000) suggest that females tend to rely more heavily on the service environment and tangible cues in their environment to make service evaluations. Males, on the other hand, consider less information and tend to take shortcuts in making decisions. Males have been found to be outcome-focussed in valuing efficiency more than personal interaction during a typical service interaction compared to females (Martilla *et al.*, 2003). Iacobucci and Ostrom (1993) find gender differences with regards to the importance placed on core and peripheral services.

With regards to the year of study, Corts *et al.*, (2000) conclude that there is no significant difference between junior and senior students' perceptions of satisfaction. Hill (1995) finds that students' expectations are stable over time which suggests that they were probably formed prior to arrival at university. However, students who have been studying for longer perceived there was a reduction in their quality experience indicating that this was less stable. Arambella and Hall's (2009) findings indicate that the importance of the quality factors related to both educational and non-educational services varies among nationality groups.

## **METHODOLOGY**

### ***Research Philosophy***

This study adopts a positivist approach. According to Cavana *et al.*, (2001), quantitative research is based on the ideals of positivism which dates back to two hundred years ago through the ideas of Auguste Comte. Precise quantitative data with values, rigorous and exact measures are the hallmarks of quantitative research. A positivist study aims to identify the universal laws that surround human behaviour which may eventually lead to controlling and predicting events.

### ***Sample***

A quantitative sample of 100 students has been surveyed at a private educational institution in Malaysia. A convenience sampling method has been used to distribute the questionnaires to the respondents.

### ***Questionnaire Design***

A questionnaire based on the importance elements of Douglas *et al.*'s., (2006) "service-product bundle has been adopted in this study. The five sections (A, B, C, D and E) of the questionnaire were developed to determine the importance various elements of the service-product bundle to students studying at a private educational institution. Section A consists of four questions on facilitating goods and five questions on physical facilities. Section B consists of six questions on explicit services and Section C consists of eleven questions on implicit services. These twenty-six items utilized a 5-point Likert scale ranging from very unimportant (1) to very important (5). Section D seeks to obtain the descriptive and demographic information relating to the students. Section E provides space for the respondents to share additional comments.

The questionnaire was piloted on 30 students to test the reliability of the research instrument and to make adjustments to any questions that the students had difficulty answering. Focus group sessions were also conducted to discuss some of the elements and issues that required more in-depth analysis and also to search for more variables with regards to a future study. According to Krueger and Casey (2000), the focus group technique has gained popularity as a means of designing programmes and outcomes. It also offers several advantages over other techniques for obtaining input into curriculum development and teaching methods as it involves peer interaction and the flexibility to pursue ideas through probes and pauses in ways that closed response

surveys do not permit. Two different focus group sessions were conducted to review the results of the study and to obtain feedback from the students relating to their accuracy.

## RESULTS

In this section, profiles of the respondents are presented before data on the reliability of the survey instrument is described. Next the results from the analysis of student's perceptions of the factors that influence educational quality are discussed and the results of the descriptive and demographic variables are presented.

### *Respondents' Profile*

The profiles of the 100 students that responded to the study are presented in Table 1. A response rate of 80% was achieved.

Table 1: Respondents' Profile

	Profile	Percentage (%)
Gender	Male	48.0
	Female	52.0
Year of Study	Year 1	40.0
	Year 2	24.0
	Year 3	36.0
Nationality	Local	72.0
	International	28.0
Programme of Study	Bus. Administration	10.0
	Accounting	24.0
	Int. Business	22.0
	Fin. Planning	19.0
	Marketing	25.0

### *Reliability of the Instrument*

Reliability tests (Cronbach's alpha) were carried out to ensure that the variables are consistent. Reliability that is above 0.80 according to Sekaran (2003) is considered good and the range of 0.70 can be considered as acceptable. He further states that reliability that is less than 0.60 is considered poor. The results are presented in Table 2 and illustrate that the overall internal reliability of the factors in this study is considered satisfactory.

Table 2: Reliability coefficient for importance elements

Elements	Number of factors	Importance elements
The facilitating goods	4	0.792
The physical facilities	5	0.862
The explicit service	6	0.803
The implicit service	11	0.869

***Student's perceptions of the importance of specific factors***

To analyze the students' perceptions of the importance of specific factors, the rank of order of factors based on mean scores were computed. Information presented in Table 3 illustrates that students perceive factors such as staff teaching ability, knowledge level of staff, university environment, consistency of teaching, and approachability of teaching staff as most important. Factors that are least important include recreational amenities, decoration, catering, supplementary handout documents/ materials and recommended modules.

Table 3: Factors perceived of importance by students-the means and standard deviation

Ranking	Elements	Mean	Std. deviation
1	Staff teaching ability	4.48	0.83
2	Knowledge level of staff	4.37	0.94
3	University environment	4.32	0.70
4	Consistency of teaching	4.24	0.74
5	Approachability of teaching staff	4.21	0.94
6	Feeling that best interests are served	4.18	0.83
7	Lecture and tutorial	4.10	0.93
8	Competence of staff	4.08	0.84
9	Sense of competence, confidence and professionalism of lecturers	4.08	0.82
10	Friendliness of teaching staff	4.07	0.85
11	Sense of competence, confidence, and professionalism of lecturers	4.07	0.83
12	Respect for feelings, concerns and opinions	4.06	0.93
13	Availability of staff	4.04	0.73
14	Concern shown when have problems	4.00	0.88
15	Presentation slides	3.99	0.91
16	Feelings that rewards gained are consistent with efforts	3.98	0.85

17	Level of difficulty of subject content	3.93	0.85
18	Workload	3.91	0.81
19	Ease of making appointments with staff	3.79	0.84
20	Lighting and layout	3.77	0.78
21	Lecture theatres and tutorial rooms	3.76	0.85
22	Recommended module	3.67	0.79
23	Supplementary handout documents/ materials	3.58	0.95
24	Catering	3.54	0.91
25	Decoration	3.50	0.74
26	Recreational amenities	3.44	0.87

### *The influence of descriptive and demographic variables on student's perceptions*

A one-way analysis of variance (ANOVA) was used to test for differences over descriptive variables, with a single independent variable being tested at a time. The dependent variables were the mean student rating for the elements in the “service-product bundle” such as facilitating goods, physical facilities, explicit services and implicit services. The independent variables analyzed were gender, nationality, year of study and programme of study. The results of the ANOVA (Bonferroni method) reporting the significant differences that exist can be seen in Table 4. Significant differences exist only with regards to implicit services and programme of study and for gender and facilitating goods, explicit services and implicit services respectively.

Table 4: ANOVA tests

Importance Elements	Descriptive Variables					F Ratio	Sig.	Sig. Difference
	<i>Programme of Study</i> <sup>2</sup>							
	FP	BA	A	IB	MK			
Importance of Implicit Services	4.33	3.83	3.89	4.29	4.05	3.175	.017	FP>BA,A
	<i>Gender</i>							
	Male	Female						
Importance of Facilitating	4.05	3.63				9.410	.003	M>F

<sup>2</sup> FP-Financial Planning BA-Business Administration A-Accountancy IB-International Business MK-Marketing

Goods								
Importance of Explicit Services	4.36	3.89				18.69 8	.000	M>F
Importance of Implicit Services	4.25	3.96				7.255	.008	M>F

The results of two focus groups confirm the empirical findings. They suggest that emphasis should be given to teaching and learning elements rather than physical facilities. The focus groups also suggested more variables that could be analyzed and eventually provide more value to a future study.

## CONCLUSION AND IMPLICATIONS

This paper evaluates student's perceptions of the importance of factors that contribute to quality education, analyzes the influence that variables such as gender, nationality, year of study, and programme of study have on the results, and discusses the implications of this research. Student's opinions, perceptions and suggestions are valuable because students "co-produce" educational services. As stated by Cooper (2007), educational success depends on the efforts of students as well as educational providers. Lovelock *et al.*, (2007) suggest that education involves mental-stimulus processing which means that students evaluate the manner in which services are provided and delivered to them. The results from this study illustrate that students appreciate and place more importance on the quality of teaching and learning elements than physical and facilitating goods. This finding is similar to the studies conducted by Douglas *et al.*, (2006), Sapri *et al.*, (2009) and Voss and Gruber (2006).

Educational institutions can address these issues by allocating more resources to hire the right staff and to provide training and staff development programmes to enable staff to continuously satisfy students. Teaching staff should also reflect their willingness to assist students and be more approachable; not just in the classroom, but also by providing some consultation hours that are flexible to students. Even though students place less importance on physical facilities, these facilitate the interaction process. As such, providing comfortable and conducive learning environment can enhance the core service provided by educational institutions.

Quality and sustainability are emerging as themes that are rapidly spreading within higher educational institutions. The results of this study indicate that quality is vital to students. Educational institutions need to focus on the factors that can be linked to quality education and to be able to sustain them in the future. With regards to quality improvement, educational institutions could consider introducing quality standards for explicit services and enhancing the quality of teaching and learning aspects. It is important for educational institutions to actively monitor the quality of services they offer and to commit to continuous improvements.

Being exploratory in nature, a small sample size from one institution was obtained for this study and therefore care must be taken in generalising the results. More thorough research is currently being undertaken with larger sample sizes. Since competition is intensifying in this sector, being able to sustain quality education will enable educational institutions to achieve competitive advantage and to position themselves strategically for future success.



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## Appendix 5.3

### Analysing Student Satisfaction-Malaysian Private Educational Environment

#### Abstract

**Purpose-** The educational environment is very dynamic and increasingly competitive. Therefore, understanding and attempting to improve student satisfaction is becoming very important to educational institutions. This study seeks to examine the factors that influence student satisfaction in the Malaysian private educational environment, measure students' perceptions of the importance of each factor and analyze the influence that demographic factors have on the results.

**Design/ methodology/ approach-** Both the secondary and primary data is used in this study. Questionnaires will also be distributed to students in the Malaysian private educational environment to determine the satisfaction level and their perception of the importance of the factors.

**Findings-** A pilot study was carried out to determine the validity and reliability of the questions. Cronbach's alpha coefficient was found to be satisfactory for all the factors. Results of the mean scores for both the satisfaction and importance elements indicated that the high scoring elements were found to be on the teaching and learning elements as compared to the physical facilities.

**Originality/ value-** Many studies on student satisfaction in many countries including Malaysia adopted SERVQUAL and SERVPERF models to measure student satisfaction. This study, on the other hand, is adopting and extending a "service-product bundle" model to examine the satisfaction level and the importance the specific service attributes at the educational institutions. The results of this study will contribute to service marketing theory by providing better measures to enable the higher education sector to allocate resources in a more efficient and effective manner.

**Keywords** Student satisfaction, service quality, higher education, survey, Malaysia

**Paper type** Research paper

#### Introduction

The Malaysian higher education sector has become a centre of educational excellence in Asia. The Malaysian government is committed towards education, as such; the education sector has always enjoyed the highest national development budget. Both public and private educational institutions play an important role in providing tertiary education to Malaysian youth and adults. Private higher educational institutions, however, play more of a role in attracting international students to enrol and study in Malaysia. In Malaysia, the higher education sector is under the jurisdiction of the Ministry of Higher Education (MOHE). The national quality agency, Malaysian Qualifications Agency (MQA) has been approved by the Parliament to implement the Malaysian Qualifications Framework covering both public and private higher educational institutions. MQA is one of the agencies under the MOHE whereby its role is to implement the Malaysian Qualifications Framework (MQF) as a basis for quality assurance of higher education as well as the reference point for the criteria and standards for national qualifications (MOHE 2009).

The private higher education sector consists of private colleges, private universities and university colleges and foreign university branch campuses as well as distance learning centres. The main feature of these institutions is that they self-generate their resources from shareholders' funds, students' fees and business activities related to the education business (Soon, 1999). Private universities offer home-grown degree programmes and 3+0 foreign university programmes, an arrangement that allows the entire foreign bachelor degree programme to be completed in Malaysia. The degree will be awarded by the overseas universities. Private colleges conduct 3+0 foreign university degree programmes and also awarding their own certificate and diploma levels qualifications to the students (University Education in Malaysia, 2009). Sixteen private universities, 16 private university colleges, 4 foreign university campuses, and 485 private colleges in Malaysia were registered with the Ministry of Education in 2007. The total number of students enrolled in Private universities and colleges stood at 323,787 in 2006. Private higher education institutions have contributed enormously to the Malaysian economy via foreign exchange earnings from the influx of foreign students which currently made up of 50,000 international students from 100 over countries (Private Universities in Malaysia, 2009). The majority of the international students coming to Malaysia are from China, Indonesia, and Iran respectively (MOHE, 2007).

The educational environment in Malaysia is very dynamic, competitive, and challenging and this situation is also confronting private educational institutions. Therefore, understanding and attempting to improve student satisfaction is becoming very important to educational institutions. This study seeks to examine the factors that influence student satisfaction in the rapidly growing Malaysian private educational environment, measure students' perceptions of the importance of each factor and to analyze the influence that the demographic factors have on the results. This paper is organized into the following sections. Relevant literature will be examined in the next section, followed by a section on methodology. The next section discusses the preliminary findings of the research and finally, the conclusion section of the research and also some suggestions for future research directions.

## **Literature Review**

### ***Student Satisfaction***

Hatcher *et al.*, (1992) state that student satisfaction is the attraction, pride, or positive feelings students develop toward the programme or institutions. Navarro *et al.*, (2005) agree that satisfaction is the final state of psychological process. Kaldenberg *et al.*, (1998) discover that student satisfaction was driven by evaluating the quality of coursework, other curriculum activities and other factors related to the college. They further suggested that the lecturers should treat students with sensitivity, sympathy, and to provide assistance when necessary.

### ***Service Quality***

Service quality is a measure of how well the service level delivered, matches customer expectations (Parasuraman *et al.*, 1985). Yeo (2008) states that service quality involve the association with teacher-student participation in relation to the professionalism-intimacy scale as affecting intermediate and lifelong learning. He further states that service quality is complex, as

it concerned with the physical, institutional and psychological aspects of higher education. Li and Kaye (1998) are of the opinion that service quality deals with the environment, corporate image and interaction among people. According to Sarrael (2008), service quality focuses on satisfying customers' needs during the "moments of truth" or service encounters or experiences that make up the customers' perceptions of the organizations. Service quality according to Kasper *et al.*, (1999) is the extent to which the service process and the service organization can satisfy the expectations of the user. Gronroos (1978) argue that service quality is made up of the technical quality that relates to the delivery process and the functional quality which is the outcomes of the process.

### ***Service Quality and Student Satisfaction***

The terms satisfaction and quality are being used interchangeably by practitioners and writers. However, researchers tend to be more clear and precise about the measurements as well as meanings of the two constructs. A lot of debates have taken place with regards to these two concepts (Cronin *et al.*, 2000; Dabholkar *et al.*, 2000; Parasuraman *et al.*, 1994). According to Brady and Cronin (2001), service quality reflects the customer's perception of elements of service since it is a focused evaluation and this includes interaction quality, physical environment quality and outcome quality. Many studies on student satisfaction tend to link to service quality because educational institutions will always strive to achieve excellence through quality education. In addition, it is likely that satisfaction will also include perceptions of service product quality, university fees as well as personal factors and situational factors. According to Zeithaml and Bitner (2003), service quality looks at the expectations of the customers in relation to the actual performance of the providers. Anthony *et al.*, (2004) link service quality to exceeding the expectations of customers if you want customers to see your performance as superior because if you do not do so, you are just an ordinary provider.

### ***Evaluation of the Service Quality Models***

Subsequent discussion will lead to the evaluation of the service quality models that are being used to measure the quality of services so as to achieve satisfaction. The SERVQUAL Model developed by Parasuraman *et al.*, (1985) originally had ten dimensions consisting access, communication, competence, courtesy, credibility, reliability, responsiveness, security, tangibles, and understanding as well as knowing the customer. Parasuraman *et al.*, (1988) later refined and filtered them to five quality dimensions namely: reliability, tangibles, assurance, empathy, and responsiveness. The five dimensions were further refined and the creators also did change the statements so as to obtain more valid and reliable results. The same criteria were, however, used to check the psychometric properties of the scale. SERVQUAL has been highly valued and widely adopted in several types of service industries such as hospitals, banks, airlines, educational institutions, retail settings, telecommunications and others. SERVQUAL also has been widely used in countries such as the United States, Australia, China, South Africa, The Netherlands, Hong Kong, the UK as well as Malaysia (Ladhari, 2008). Even though it has been widely adopted and highly valued, it has received a lot of criticisms too.

Buttle (1996) put across his theoretical and operational criticisms of SERVQUAL which include the point that the model is not able to draw on established economic, statistical, as well as psychological theory. His criticisms in a way indicate that fundamental research is still needed as there are still doubts whether service quality is still assessed in terms of expectations and

perceptions by customers, and also the doubts about the dimensionality and the universality of the five dimensions of the SERVQUAL model.

Cronin and Taylor (1992) criticize on the potential inappropriateness of the choice criteria of the five dimensions. Hemmasi *et al.*, (1997) say that the model fails to offer to the management enough information towards strategy formulation as well the allocation of resources geared to enhance customer satisfaction. Another model was then being developed in response to the strong criticisms on SERVQUAL model. The new model, developed by Cronin and Taylor in 1992 is called SERVPERF model. The model was actually developed based on Performance Model Satisfaction of the SERVQUAL scale and what they did was to reduce the number of items and retained the five quality dimensions. Basically the expectation items were deleted and not used at all. This model also received criticism for concentrating too much on the psychometric as well as the methodological soundness of its scales. Cronin and Taylor (1994) respond to the criticisms by Parasuraman *et al.*, (1994) on his SERVPERF model by stating that the concerns raised do not have any substance but was more on interpretation. Parasuraman *et al.*, (1994) raise issues that relate to the usefulness of their perceptions-expectations gap which is the main thrust of their SERVQUAL model. Francois *et al.*, (2007) are of the opinion that SERVQUAL and SERVPERF models are on equal basis as the valid predictors of overall service quality and the choice to use which model depends on the diagnostic purposes of the users.

Sureshchandar *et al.*, (2001) respond to the criticisms of SERVQUAL model by coming out with The Human-Societal Element Model. They address the other important elements of service quality such as service product or the core service as well as the standardization and systematization of service delivery. The following dimensions have been used by them: core service or service product; the human element of the service delivery; the standardization and systematization of service delivery; tangibles of service; and social responsibility. Smith (2004) explores students' perceptions of the quality level of off-campus support with regards to distance learning in New Zealand. The data that was gathered was used to develop a model of quality off-campus support for distance-learning programs. Another study is by Douglas *et al.*, (2006) and they utilize the concept of the "service-product bundle" to measure student satisfaction and the importance elements. The implicit and explicit services are used to relate to the SERVQUAL dimensions to service quality in higher education. The bundle consists of three elements and they are the physical or facilitating goods; the sensual service provided-the explicit service; and the psychological service-the implicit service.

### ***Demographic variables***

According to Soutar and Mc Neil (1996) there is significant relationship between gender and satisfaction with service quality as it seems that males are more satisfied than females. Joseph and Joseph (1998) on the other hand, indicate that there is no significant difference between males and females. Yelena's (2002) study on international student satisfaction indicates that the quality of teaching is positively related to recommending. The results also show that student satisfaction mediates the relationships between quality of learning, library services and recommending.



## **Methodology**

### ***Research Philosophy***

This study is adopting a positivist approach. According to Cavana *et al.*, (2001), quantitative research is based on the ideals of positivism which dates back to two hundred years ago through the ideas of Auguste Comte. Precise quantitative data with values, rigorous and exact measures are the hallmarks of quantitative research. Positivist study aims to identify the universal laws that surround human behaviour which may eventually lead to controlling and predicting events.

### ***Sampling***

A quantitative sample of 1000 students will be obtained from students of private educational institutions in Malaysia. A convenience sampling method will be used to distribute the questionnaires to the respondents.

### ***Data Collection Methods***

Both secondary and primary data sources will be used by the author in this study. Secondary sources such as online journals, books, and other references will be used as they provide good starting point for the study.

### ***Ethical Issues***

The author will adhere strictly to the Newcastle Business School Ethics Policy throughout this research. Informed consent will be obtained from the participants and full disclosure of the reasons for conducting the study will be made in advance. No one under 18 years of age will be surveyed.

### ***Questionnaire Design***

Subsequent to the literature review as well as an initial investigation with the students, a questionnaire based on Douglas *et al.*, (2006) “service-product bundle” was drafted. The questionnaire consists of five sections (A, B, C, D and E) developed to determine the satisfaction level and the importance of the service-product bundle to the students of a private educational institution. Section A consists of four questions on the facilitating goods and five questions on the physical facilities. Section B consists of six questions on the explicit service and Section C consists of eleven questions on the implicit service. These twenty-six items utilized a Likert-scale format. Section D seeks to obtain the demographic information of the students and the information relates to gender, year of study, nationality, programme of study, and the semester grade. The last section, Section E is for the respondents to provide their comments. The comments obtained in this section will be used to enhance the questionnaire in the final survey.

### ***Data Analysis***

The data will be analyzed using SPSS 16.0 for Windows, a statistical package for the Social Sciences. Descriptive statistics such as means, standard deviations as well as analysis of variance will be used to describe data, trends, and provide summaries. Reliability and validity statistics will be evaluated as well. Factor analysis will also be used to determine the distinct factors that influence student satisfaction. The use of factor analysis will help to confirm the existing factors or even suggest other factors that can lead to better understanding of student satisfaction.

Correlation analysis will also be performed to evaluate the strengths of the relationship between the factors and student satisfaction specifically.

### ***Pilot Test***

The questionnaire developed to determine the satisfaction level and the importance of the various categories of the service-product bundle was tested under a pilot study with a sample of 30 students to determine the suitability of the research instrument. The pilot testing was essential to determine the field conditions and acted as a trial run for the questionnaire (Naoum, 2003). It is also important for validating the practicality of the questions, identifying the response rate as well as resolving any shortcomings that might arise. The students took about 20 minutes on average to fill in the questionnaires. From the feedback obtained, Year 1 students found the questions to be slightly difficult to understand and that was why they took longer time to complete as compared to the Year 2 and Year 3 students. The questions will be amended slightly in the final survey.

### ***Preliminary Data Analysis and Findings***

The Demographic profile of the respondents for the pilot study can be distributed as follows: (Please refer to Table 1)

Table 1: Demographic profile of the respondents

	Frequency	Percent
Gender		
Female	15	50.0
Male	15	50.0
Year of Study		
Year 1	21	70.0
Year 2	6	20.0
Year 3	3	10.0
Nationality		
Local	26	86.7
International	4	13.3
Programme of study		
Accounting	17	56.7
International Business	12	40.0
Financial Planning	1	3.3
Semester grade		
A	2	6.7
B	11	36.7
C	13	43.3
D	4	13.3

***Reliability of the Instrument***

In order to ensure that there is internal consistency of the variables, reliability tests (Cronbach's alpha) were carried out and the results are as follows: (Please refer to Tables 2 and 3 for the details)

Table 2: Reliability coefficient for Satisfaction elements

Elements	Cronbach's alpha	Number of factors
The Facilitating Goods	0.823	4
The Physical Facilities	0.817	5
The Explicit Service	0.855	6
The Implicit Service	0.892	11

Table 3: Reliability coefficient for Importance elements

Elements	Cronbach's alpha	Number of factors
The Facilitating Goods	0.792	4
The Physical Facilities	0.873	5
The Explicit Service	0.799	6
The Implicit Service	0.870	11

From Tables 2 and 3 above, we can see that the reliability coefficient of the satisfaction elements ranges from 0.817 to 0.892 and from 0.792 to 0.873 for the importance elements. Nunnally (1967) states that the reliability of 0.50 to 0.60 is acceptable for research conducted at the beginning stage. Sekaran (2003) on the other hand indicates that reliability that is above 0.80 is considered good and the range of 0.70 can be considered as acceptable. He further states that reliability that is less than 0.60 is considered poor. The internal reliability of the factors is satisfactory in the pilot survey.

***Means and standard deviation***

The means and standard deviation of the satisfaction elements and the importance elements are illustrated in Tables 4 and 5 respectively.

Table 4: The Summary of the means and standard deviation for the satisfaction elements

Elements	Summary of means and standard deviation	
	Means	Std. deviation
The lectures and tutorials	3.400	0.7701
The presentation slides	3.367	0.9279
The supplementary handout documents/ materials	2.933	0.8277
The recommended module text	3.300	0.7944
The lecture theatres and tutorial rooms and their level of furnishing	3.000	0.9469
The decoration	2.800	0.9248
The lighting and layout	3.067	0.7397
The catering	2.700	0.9523
The recreational amenities	2.800	0.7144
The knowledge levels of staff	3.367	1.0981
The staff teaching ability	3.467	1.1666
The consistency of teaching irrespective of personnel	3.367	0.9643
The ease of making appointments with staff	3.267	0.7397
The level of difficulty of the subject content	3.467	0.9371
The workload	3.300	0.7397
The friendliness of teaching staff	3.467	0.9371
The approachability of teaching staff	3.500	0.8610
The concern shown when you have a problem	3.167	0.9129
The respect for your feelings, concerns and opinions	3.400	0.8137
The availability of staff	3.167	1.0199
The competence of staff	3.433	0.8584
The university environment's ability to make you feel comfortable	2.833	1.0199
The sense of competence, confidence and professionalism conveyed by the ambience in the lectures	3.400	0.9322

The sense of competence, confidence and

professionalism conveyed by the ambience in the tutorials	3.300	0.8367
The feeling that your best interests are being served	2.967	0.9643
The feelings that the rewards gained are consistent with the effort you put into assessment	3.267	0.7849

Students find approachability of teaching staff to be of highest value and catering to be the least in terms of satisfaction. Other elements which are also of high values are the staff teaching ability and the friendliness of the staff.

Table 5: The Summary of the means and standard deviation for the importance elements

Elements	Summary of means and standard deviation	
	Means	Std. deviation
The lectures and tutorials	4.067	0.9803
The presentation slides	4.000	0.9469
The supplementary handout documents/ materials	3.567	1.0063
The recommended module text	3.633	0.8087
The lecture theatres and tutorial rooms and their level of furnishing	3.767	0.8976
The decoration	3.467	0.7303
The lighting and layout	3.800	0.8052
The catering	3.600	0.8944
The recreational amenities	3.533	0.8996
The knowledge levels of staff	4.367	0.9643
The staff teaching ability	4.500	0.9002
The consistency of teaching irrespective of personnel	4.200	0.7611
The ease of making appointments with staff	3.800	0.8052
The level of difficulty of the subject content	3.833	0.9855
The workload	3.933	0.8277
The friendliness of teaching staff	4.100	0.8030
The approachability of teaching staff	4.200	0.9966
The concern shown when you have a problem	4.033	0.9643
The respect for your feelings, concerns and opinions	4.067	0.9444
The availability of staff	4.033	0.7184

The competence of staff	4.033	0.8503
The university environment's ability to make you feel comfortable	4.400	0.6747
The sense of competence, confidence and professionalism conveyed by the ambience in the lectures	4.067	0.8277
The sense of competence, confidence and professionalism conveyed by the ambience in the tutorials	4.133	0.8193
The feeling that your best interests are being served	4.200	0.8867
The feelings that the rewards gained are consistent with the effort you put into assessment	4.000	0.8710

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As for the importance elements, the highest value is the staff teaching ability and the least is the decoration. Other importance elements that are also of high values are university environment's ability to make student feels comfortable and the knowledge level of the staff. Other analyses such as factor analysis, correlation analysis and analysis of variance (ANOVA) have not been conducted yet at this stage due to the small sample size.

## Conclusion

The educational environment is becoming very competitive and understanding student satisfaction has become very important to educational institutions. The providers have to take note that student satisfaction is a short-term indication that requires constant monitoring and the benefits of understanding and making students satisfied are enormous. This study specifically addresses the issue of student satisfaction and students' perceptions on the importance of the factors.

## Limitations and Future Research

The respondents for this study will be taken from a convenience sample of business students only. Future research might consider looking at broader and more randomized samples of the population for better results. Future study on student satisfaction should also address the issues on how to monitor those factors once identified so as to ensure that students are always satisfied with the services provided by the educational institutions.

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